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Longhouse to Blastfurnace

Man In His World

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Longhouse to Blastfurnace

Growth of an Industrial Community

Man In His World

James Forrester
Gary Birchall
Douglas M. Gray

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Man In His World Series

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Understanding Communities
Longhouse to Blast furnace
—Growth of An Industrial Community
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Stone Age Man
Teacher's Guides

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The People of the Long House

The dark forest was quiet. Kanati moved silently along the footpath, his moccasins still wet from having slipped in the river, with Kanati still in them. However, the eight fish on his pole made the slip easier to accept. He saw a glint of sunshine ahead and started to trot.

Kanati entered a clearing where the brush had been cut by the braves of the tribe. The trees had been chopped or burned down. He slowed to a walk, glancing at the women who were digging the soil. Others were piling the earth into mounds and then planting seeds of corn or beans or squash.

Things to Do

1.
With your teacher helping you, look up the meaning of the following words: (a) primitive (b) subsistent (c) sedentary (d) nomadic (e) urban.

2.
Which of the words describe Kanati's way of life?

3.
Which of the words describe your way of life?

4.
Look at the sketches on this page and tell how they show much about some of the words in question one.

5.
What tools would you sketch to show your way of life?

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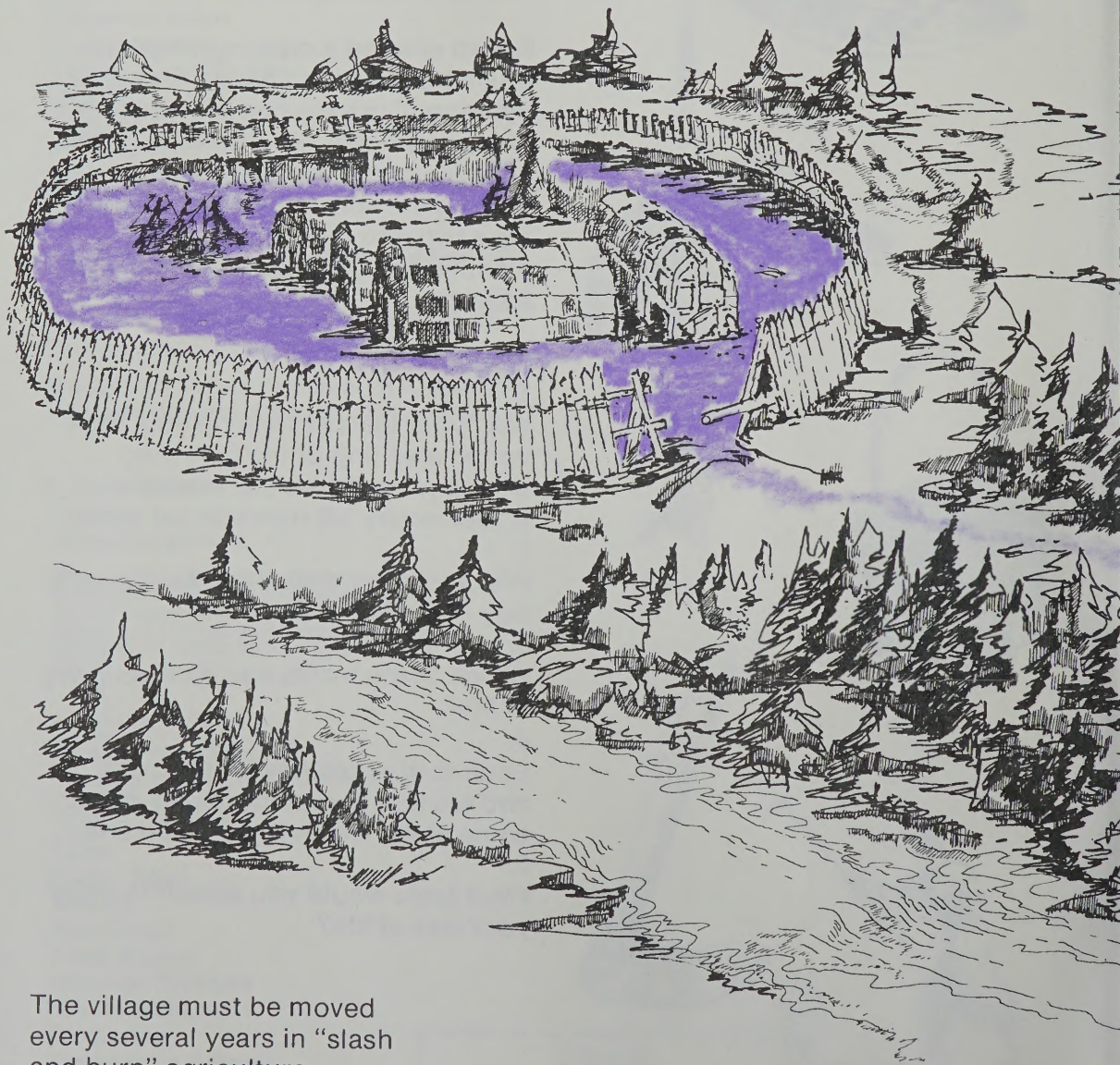
Kanati was met by his family. They were happy with his catch. In no time at all the fish had been cleaned and were cooking over the open fire outside the long house.

"Where did you go to get the fish?" his mother asked.
"Just past our old village, near the bend in the river. You know the big rock in the middle? That's where I fell in! But that's where I caught the fish."



The village must be moved every several years in "slash and burn" agriculture.

Did You Know?

—these people did not know about fertilizers

—year after year they planted crops on the same soil

—sand soils where the Indians lived were low in phosphorus

—phosphorus has been called the master key to agriculture

—in Canada where the growing season is short and corn must ripen early before the frost comes, phosphorus speeds up growth

1.

Give as many reasons as you can for the Indians to abandon their village.

2.

What *division of labour* have you noticed in this Indian community?

3.

Explain why the division of labour does or does not suit your ideas of what males and females should do.

4.

Look up the word technology. How does the technology of the Indian limit his way of life?

5.

How did your sketches for question 5, page 3 reflect today's technology?

Things To Do

Get a box of sand and a box of clay. Decide which soil:

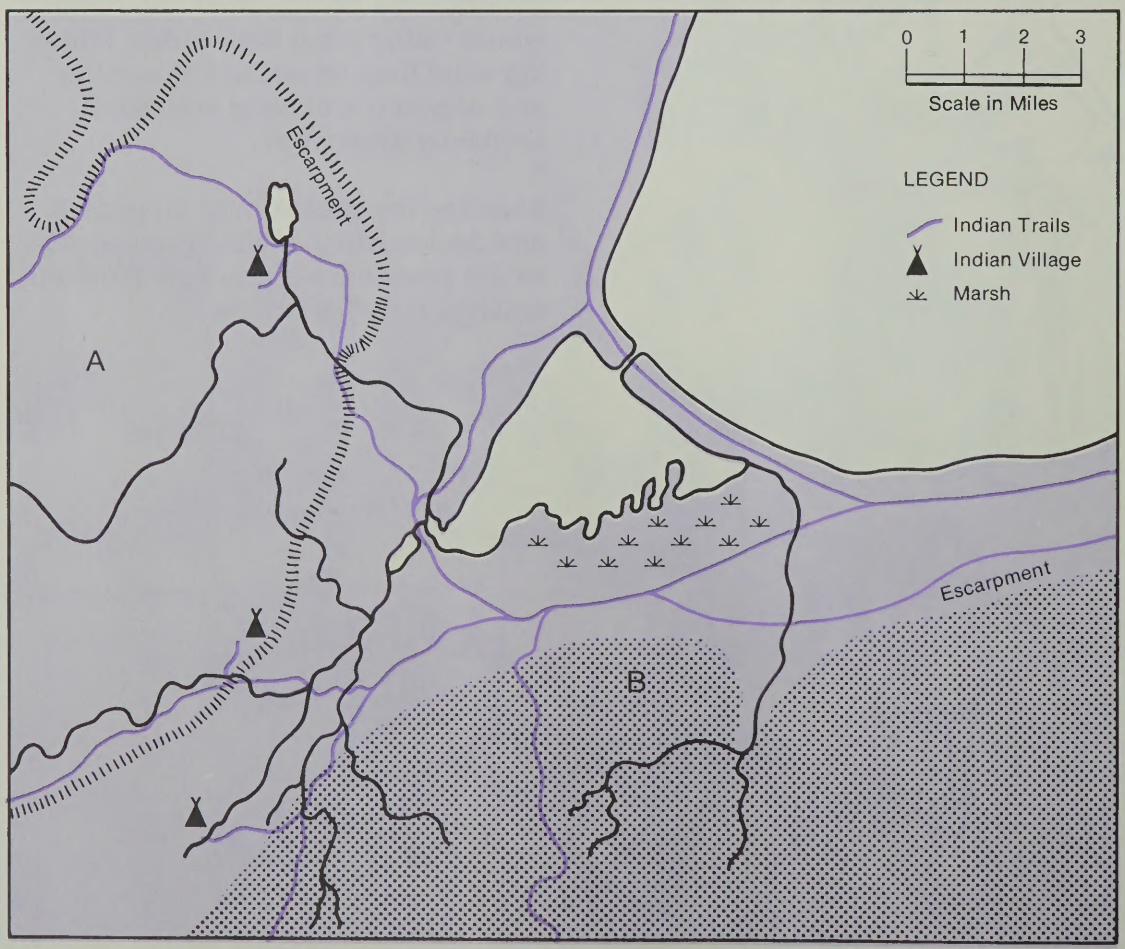
(a) runs through your fingers most easily when it is dry;
(b) runs through your fingers most easily when it is wet;
(c) dries out most quickly after being wet;
(d) drips out without becoming all stuck together in one lump;
(e) warms up very quickly (hold a lighted lamp bulb near the soil, use both wet and dry soil, see if there is any difference);
(f) cools most quickly (for (e) and (f) use a thermometer);
(g) is most easily broken up or ploughed with a little wooden stick after the material has been wetted.

1

3

1.
The Indians did not have iron. Why?
2.
What ways would they have of ploughing land in order to plant corn, squash and beans?
3.
How did they get rid of the trees in order to clear the land for planting crops?
4.
Why would the Indians bother to get rid of trees to plant crops?
5.
On what soil do you think the Indians would rather plant their crops, knowing what they do about the wetting and drying out of sand and clay? Explain your answer.
6.
Examine the sketch-map on page 8, and decide which areas have clay soil, which areas have sandy soil. Write out reasons for your choice.

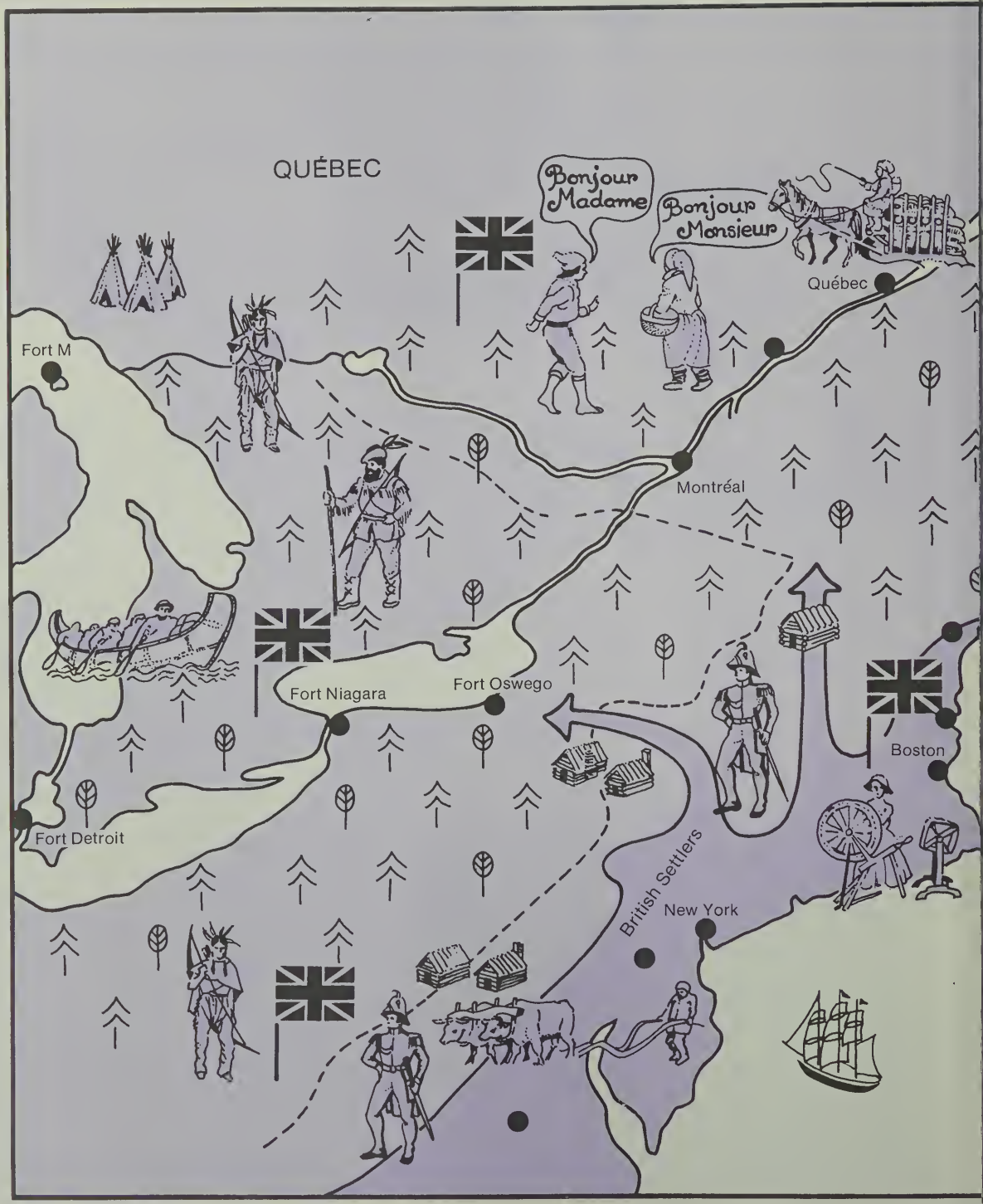
2


0 1 2 3
Scale in Miles
LEGEND
Indian Trails
Indian Village
Marsh
Escarpment
A
B
Escarpment

How the Indian saw his environment

1.
Why doesn't the Indian make a different use of his environment?
2.
Draw a series of pictures to illustrate how man today uses the same natural resources.
3.
What do you think about the white man's way and the Indian's way of using the same environment?

An Old Settlement Map

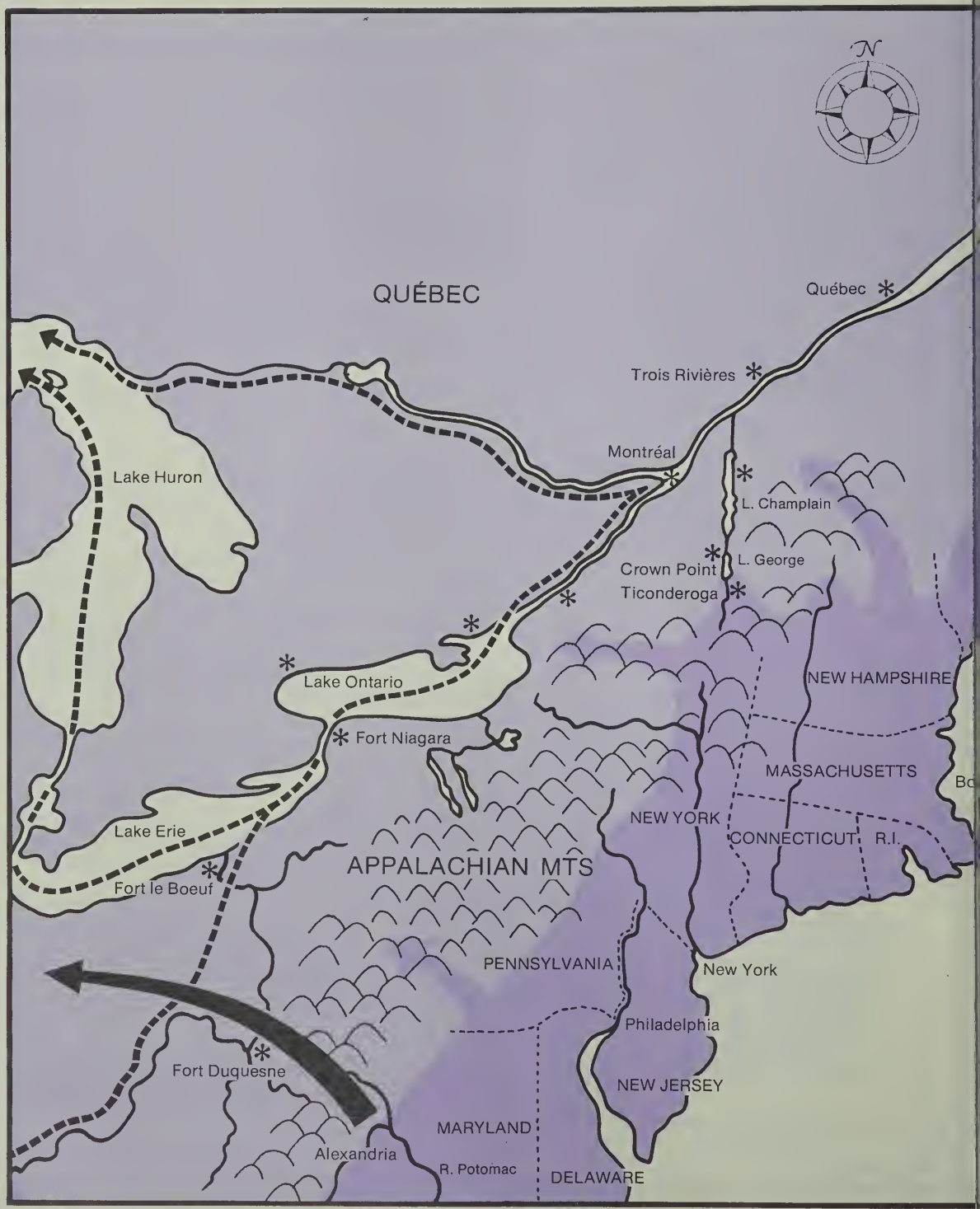


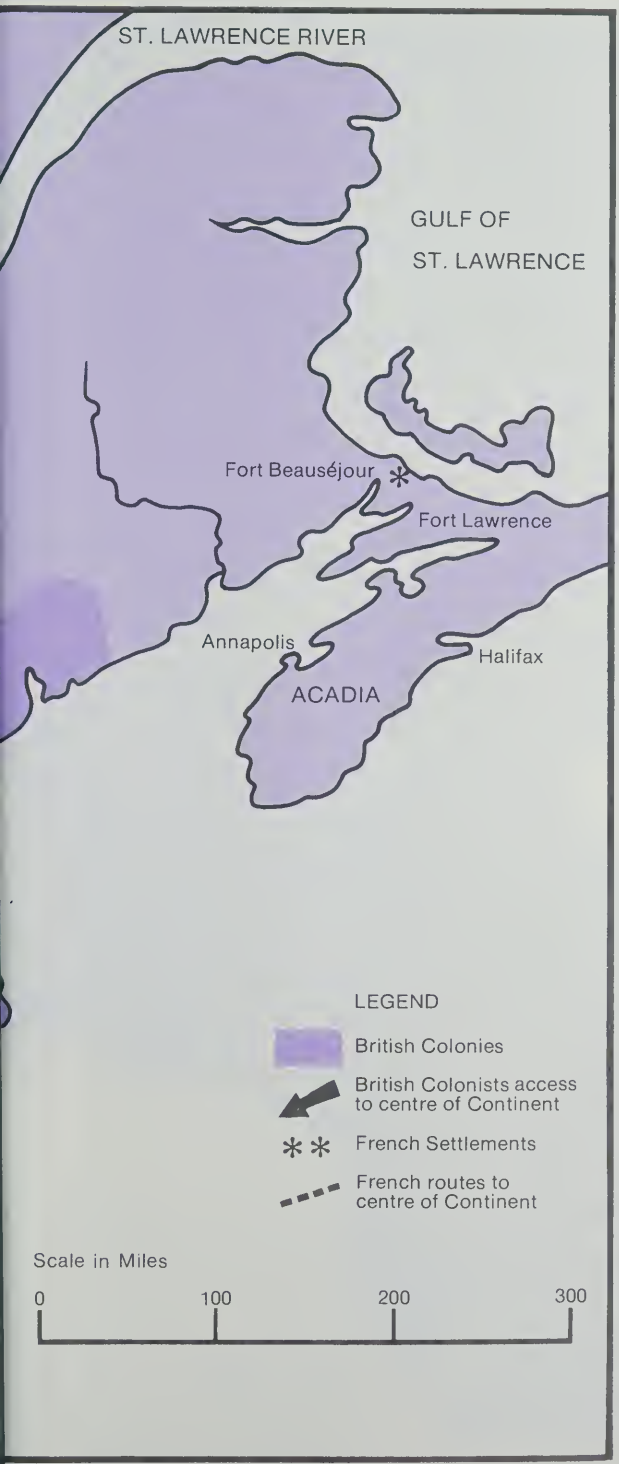
Maps Tell a Story

1.
Find Fort M and Quebec City on the map. How far are they from each other? (Use map scale to measure.)
2.
Mark on the map the route you would use to go from Fort M to Quebec City. (Remember, in those days there were no roads, cars, trains, or airplanes.)
3.
Using your route, how many miles is it from Fort M to Quebec City?
4.
What would you travel in? Why?

5.
What do the flags on the map tell you?
6.
(a) Can you find a dotted line on the map? The soldiers were told not to let any of the settlers move across this line. Why?
(b) According to the map, who was allowed to cross the line? Why?
7.
How would you describe the settlements that lie beyond the dotted line?
8.
Follow the line that marks the farthest point of settlement. Why is this line so uneven?
9.
The settlement line is often referred to as the "frontier." What does this mean?
10.
What evidence can you find on the map that it belongs to a time that was long ago?

A Very Special Map





1.
This is called a relief map. What do relief maps try to tell you?
2.
In what ways might relief maps be of help when planning your travels?
3
How is the map helpful in answering question eight on page 11?
4.
Find names for the rivers found on this map.
5.
Why is it helpful to know about the rivers?
6.
Mark an arrow (⟶) on each river to show the direction the river flows.
7.
Although the mountains are not high they are a real problem to travel across. Can you see why?

A Later Settlement Map

The map you see here shows how settlement changed in only a few years' time.

1.

Compare this map with the OLD SETTLEMENT MAP. Describe as many changes as you can find.

2.

Draw up a list of questions that come from the changes you see and to which you do not have answers. For example:

Question 1

Why has the name Québec been removed and replaced with the names Upper Canada and Lower Canada?

Question 2

How can Upper Canada be "upper" when it is obviously lower on the map?

Now you try . . .

3.

The dotted line that you saw on your first map has now disappeared and a new dotted line can be seen. What is the purpose of this new dotted line? What clues help you decide?

The Settlers—

Where did they come from?

Name	Occupation	From	To
William Rymal	farmer	Pennsylvania	Niagara
Robert Land	farmer	New York Province	Niagara
Justus Sherwood	farmer	Vermont	Quinte
John Page	watchmaker	New England	Prince Edward Is.
Richard Beasley	fur trader	Albany	Niagara
Isaac Clements	silversmith	Boston	Shelburne
Phoebe Land & Children	farming	New York Province	New Brunswick
Augustus Jones	land surveyor		Niagara
Solomon Jones	doctor's helper	Albany	Quinte
Joseph Brant	Iroquois chief	New York Province	Niagara
Charles Bruff	goldsmith	New York City	Shelburne

You see in this chart some of the names of settlers who made new homes in the northern wilderness.

1.
How many families can you count on the chart? Are there 9, or 10, or 11?

2.
Can you locate on your map (page14) where each of these settlers came from?

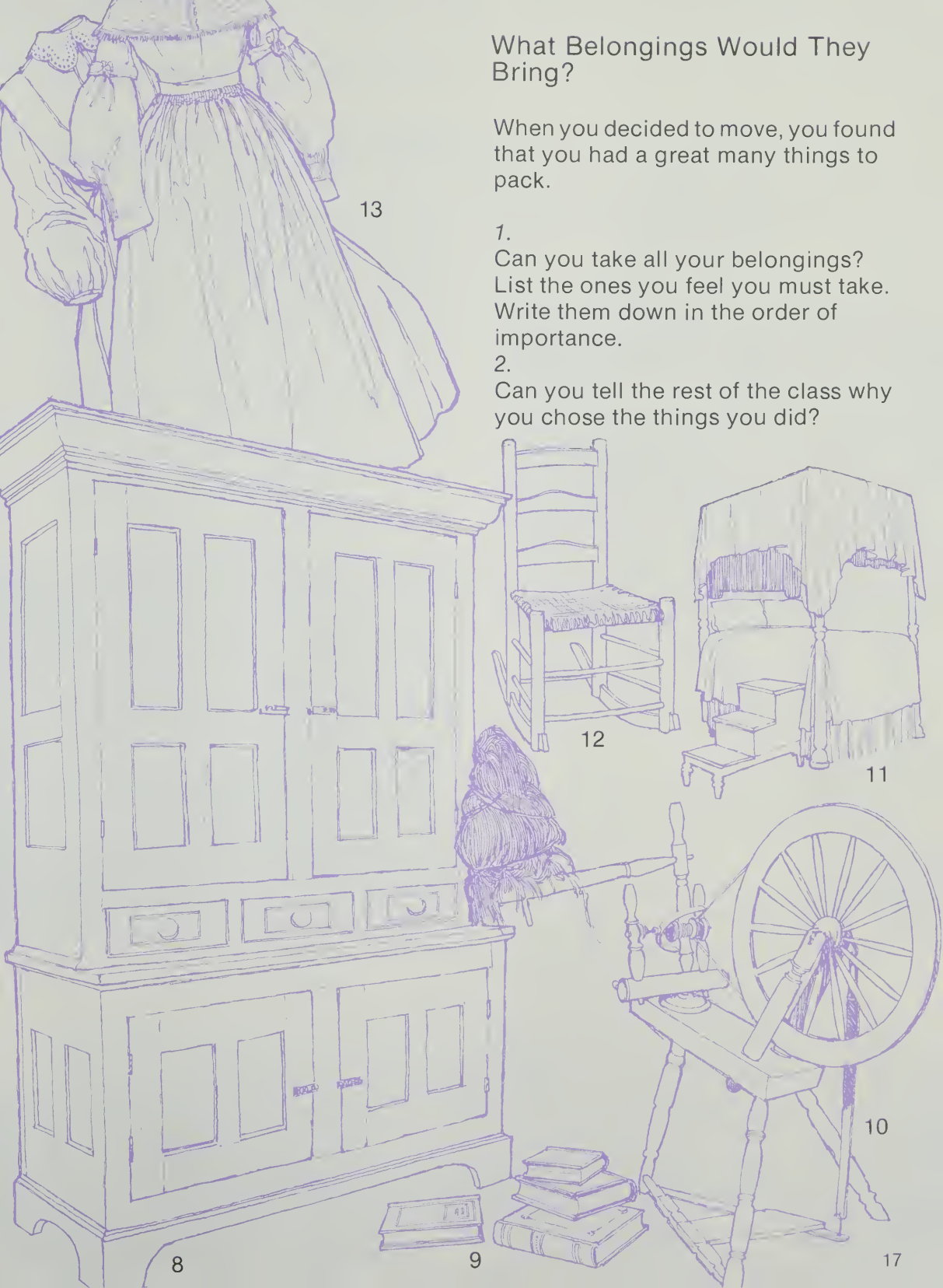
3.
Can you locate on your map where each settler made his new home?

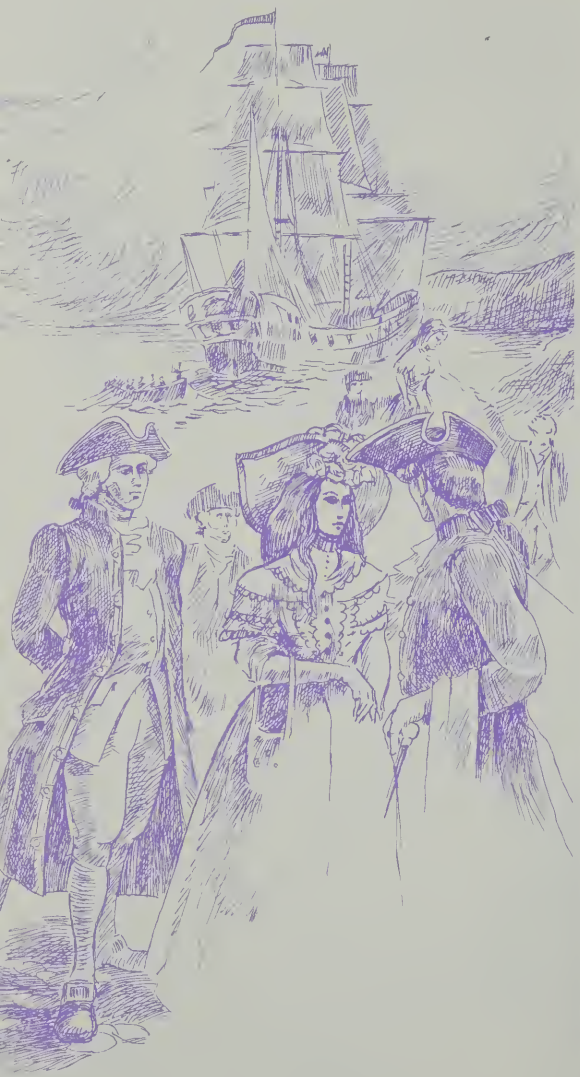
4.
See if you can trace the route or path taken by each settler when he moved to his new home. How would you convince your classmates that your choice of route is a good one?

What Belongings Would They Bring?

When you decided to move, you found that you had a great many things to pack.

1.
Can you take all your belongings? List the ones you feel you must take. Write them down in the order of importance.
2.
Can you tell the rest of the class why you chose the things you did?





The Journey Northward

Here are two pictures of settlers arriving at their new homes.

1.

Take each of the settlers names on page 16 and place the name under the picture you think they most likely belong to. Point out the things in the picture that helped you decide.

2.

Which group do you think will make the better settlers? Why do you think so?

3.

How might these pictures change your thoughts about the list of things you decided to take? (page 17).

The Loyalists

How the Trouble Began

At Lexington a group of our townsfolk met to drill. When some British troops came in sight of them, the officer in charge (Pitcairn) spoke to our men in these words; "Leave, you rebels. Throw down your guns and leave!" Hearing this, the troops cheered their leader. One or two officers fired their pistols and four or five soldiers fired their guns. And then, all the troops fired. Eight of our men were killed and nine wounded. Then the troops set fire to several houses. They looted the houses. They shot down unarmed people and old people, despite their cries.

Six companies of British soldiers found a group of country people with guns on the green at Lexington. When the soldiers marched up to ask what they were doing, they ran off. And then several guns were fired upon the King's soldiers from behind a stone wall, one soldier was wounded, and Major Pitcairn's horse was shot. Because of this attack by the rebels, the troops returned the fire and killed several of them.
Then the rebels began to fire upon the troops from behind stone walls and houses and several soldiers were killed or wounded. And such was the cruelty of the rebels that they scalped and cut off the ears of some of the wounded men who fell into their hands.

1.
Who was to blame for the trouble?
2.
Why do the two stories differ so much?
3.
In what respects do they agree?

4.
After reading these two stories, do you know why there was trouble? Think about it.
5.
What do you see on the map on page 14 that tells you the local people defeated the King's soldiers?
6.
Look at the map on page 10. Can you see any reason why the people in the settled areas might be angry with the King and his soldiers?

THE CROWN & EMPIRE

COLONIAL WAR ENDS

A NEW NATION IS BORN

The King's troops have lost, and the war with the Colonies is at an end. The King's troops are now leaving for home. The Thirteen Colonies have declared themselves the UNITED STATES OF AMERICA.

MANY REMAIN LOYAL

A great many of the colonists still offer loyalty to the King. We honour these men and women. As a gift to them the King will offer 100 acres of land to every Loyalist family that wishes to move in order to remain under the King's protection.

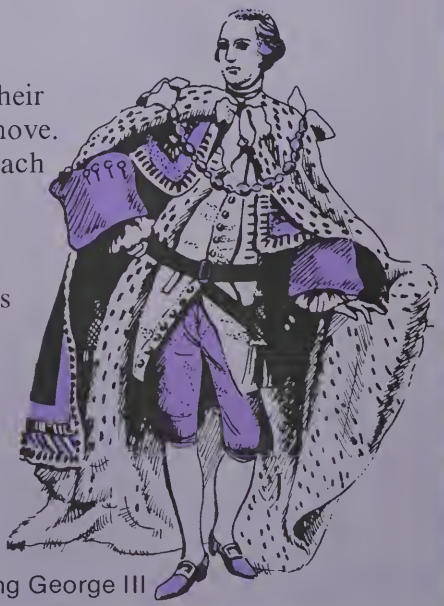
Neither loss of property nor injustice, nor imprisonment can break their spirit nor shake their loyalty to their King.

George Washington

THE KING WILL PROVIDE FOR THEIR NEEDS

The King knows that his loyal colonists must leave nearly all their possessions behind when they move. In gratitude the King will give each Loyalist family the following:

1 plough	2 spades
1 frow	2 scythes
1 hand saw	3 iron wedges
1 knife	3 hoes
1 sickle	3 chisels
1 broad axe	3 gimlets
1 nail hammer	



King George III

THE LIBERTY PRESS

FREEDOM

HANG THEM!

Those who did not fight with us for freedom are traitors to the cause of freedom. Those who spied for the King will be found and hanged from the nearest tree.

OUR NEW FLAG

FREEDOM

LOYALISTS FLEE TO CANADA

All those who are friends of the King are now fleeing the country. Let us help them leave. All their belongings we will seize in the name of LIBERTY. Then let us give them a royal send-off that they will not soon forget. TAR AND FEATHER every one of them!

1.
These two pages from newspapers both have articles about Loyalists. What does the term Loyalist mean?

2.
How can two newspapers have such different stories? What points do they agree on?

3.
Did the Loyalists deserve the treatment they received:
(a) from the colonists?
(b) from the King?

4.
Did the Loyalists move because of loyalty to the King? What do you think?

5.
Examine the flag of the new UNITED STATES OF AMERICA. How many stars does it have? How many stripes? Why?

6.
Compare the "stars and stripes" flag with the present flag of the UNITED STATES OF AMERICA. How do you explain the differences?

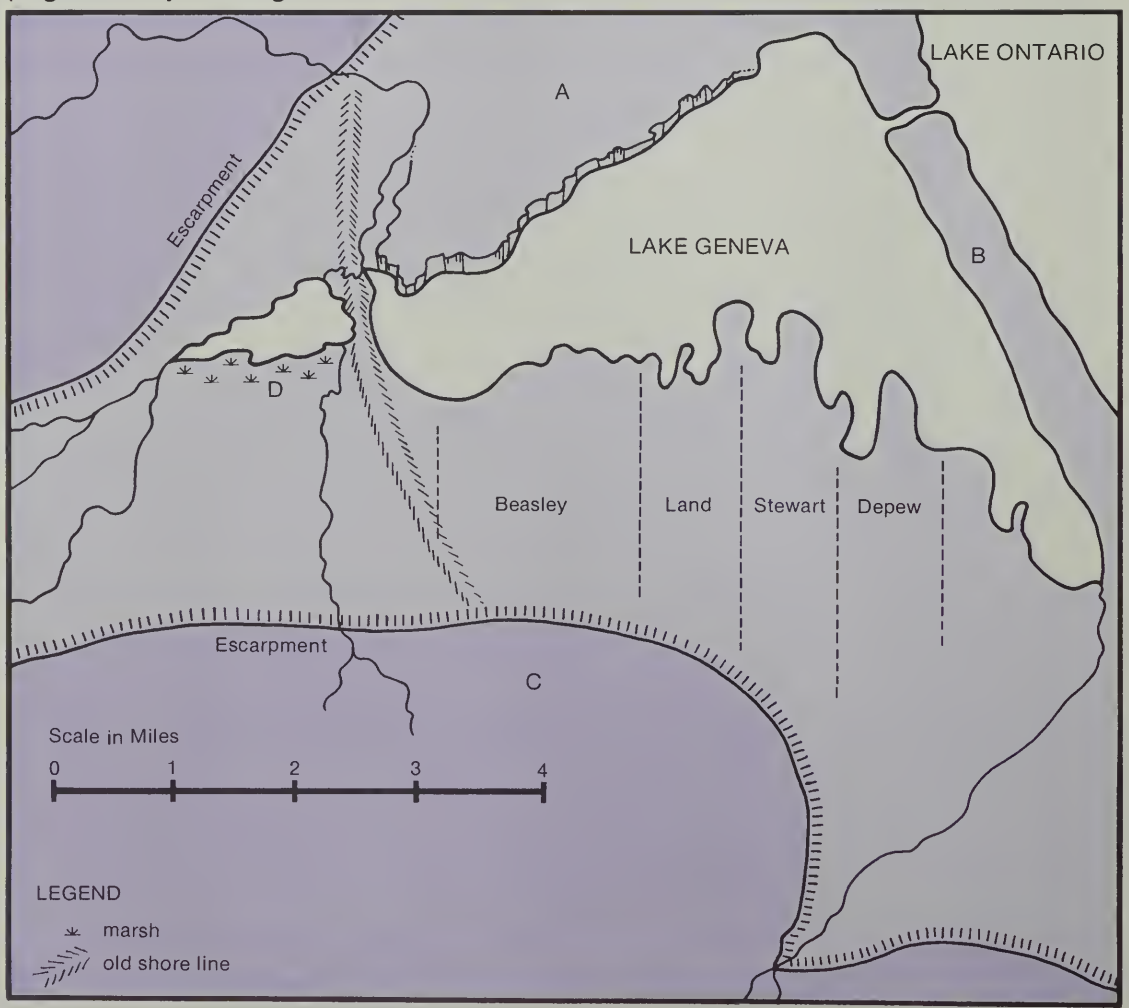
A Loyalist Settlement

Choosing the First Lots

1.
Here you see the locations of four of the earliest settlers. How do you explain these locations?

2.
Why did the first settlers not choose to settle at location A, or location B or location C, or location D?

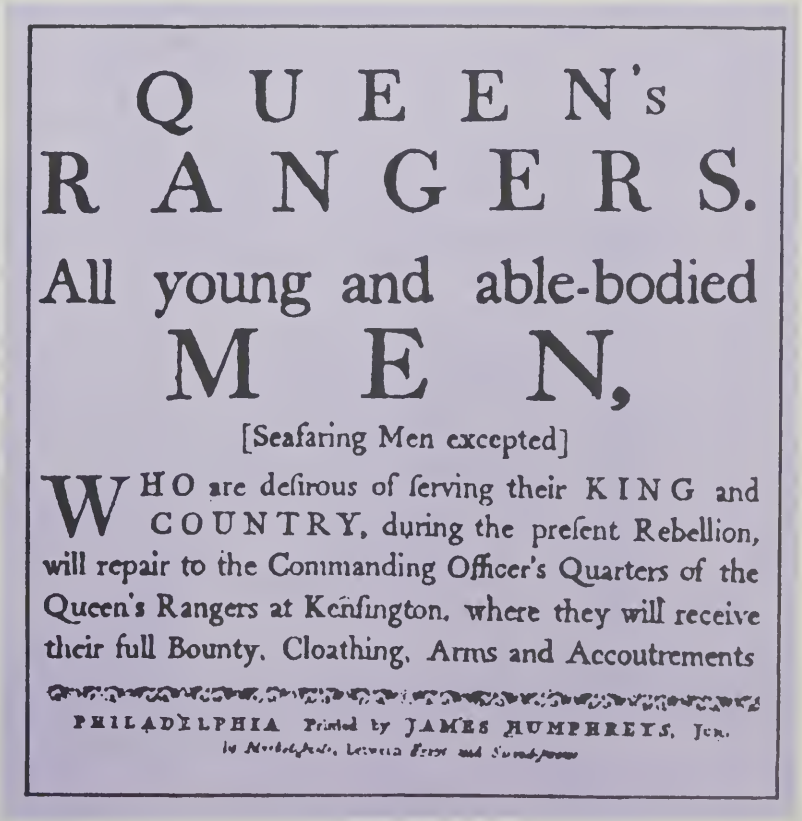
3.
This region where the settlers chose to build their homes can be found on the other maps, such as the one on page 14. Try finding it.



The Story of Robert Land

As a young man, Robert Land fought with the King's soldiers against the Indians. He enjoyed a life of danger. But after the Indian Wars were over, he settled down on a farm in New York Province on the Delaware River. He married a girl named Phoebe and they had many sons and daughters. Then, when the trouble started between the King and his colonists, Robert had a difficult decision to make. Should he stay loyal to his King, or should he leave the King and join his friends and neighbours in a fight against the King. Robert Land chose to stay loyal to the King. He became a spy and a messenger for the King's soldiers.

But while he was away, his neighbours accused Phoebe and the children of being traitors and John, the eldest son, was put in jail. Finally, the Lands' farmhouse was burned to the ground and Phoebe and her family were forced to flee into the woods. Mrs. Land took her family to New York City where they had the protection of the King's armies. In the meantime, Robert had been carrying messages to Fort Niagara. On one such trip, he was wounded and captured but was lucky enough to escape.



QUEEN's
RANGERS.

All young and able-bodied
MEN,

[Seafaring Men excepted]

WHO are deſirous of ſerving their KING and COUNTRY, during the preſent Rebellion, will repair to the Commanding Officer's Quarters of the Queen's Rangers at Kenſington, where they will receive their full Bounty, Cloathing, Arms and Accoutrements

PHILADELPHIA Printed by JAMES HUMPHREYS, Jun.

Finally, when it was necessary for the King's armies to leave New York City, Mrs. Land and her children left with them. They sailed aboard a ship bound for New Brunswick and here began a new life in the wilderness. (They were called LOYALISTS.) Mrs. Land heard no news of her husband, so it was feared that he was dead.

Life was hard in New Brunswick, and finally, Phoebe Land decided it would be better to move to the new settlements in the Niagara region. When they arrived at Fort Niagara, they heard from a trader about a white settler named Land living at the head of Lake Ontario. Could it be Robert?

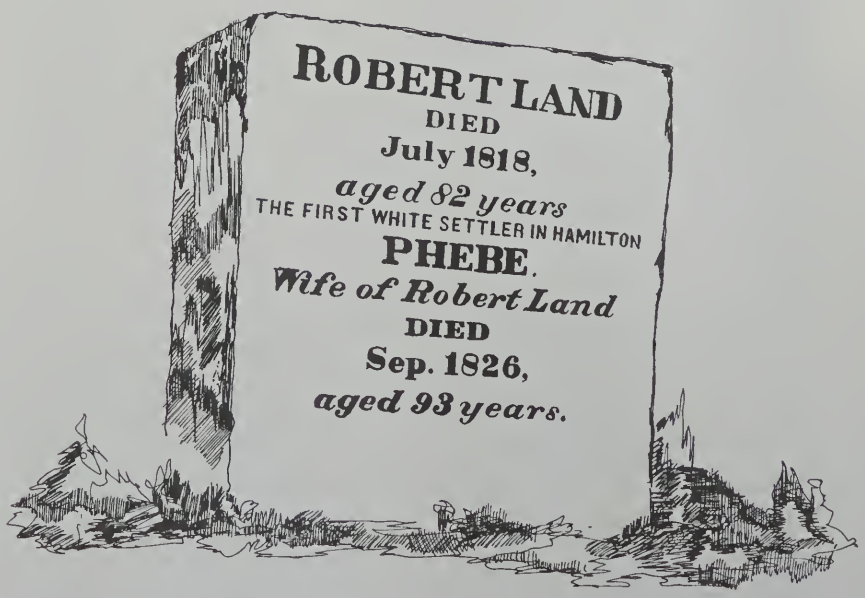
After all, the name Land was not very common. Phoebe Land would not rest until she and her sons had walked the forty miles to the head of the Lake. And, of course, you can guess the rest of this story. It was indeed Robert Land. It must have been a very happy moment for the Land family.

1.

The story of Robert Land supports many of the ideas we have formed about the early settlers. See if you can pick out these ideas as they are told in the story. Make a list.

2.

Tombstones provide interesting facts about a family. What interesting things can you learn about the Land family by carefully looking at their tombstones?



The Life of the Settler

The Father's Tools

1.
The things you see on this page were listed as things given by the King to the settlers (see page 20). Using the King's list, identify each of the articles you see here.

2.
Items 2, 3,and 5 are all related to the growing of plants and crops. What does each of these items have to do with crop raising? In what order are they used?

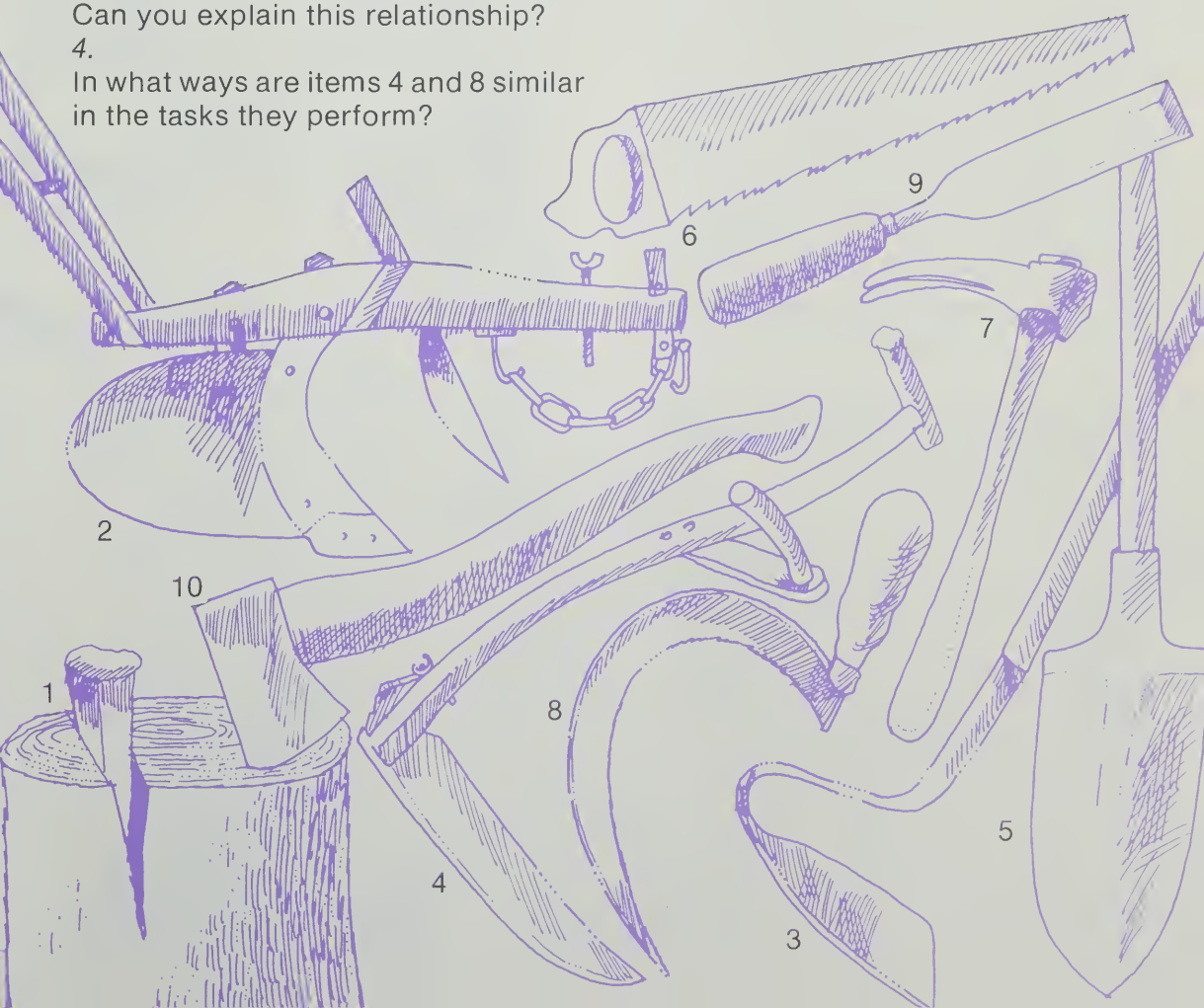
3.
Items 1, 6, 7, and 9 are all related. Can you explain this relationship?

4.
In what ways are items 4 and 8 similar in the tasks they perform?

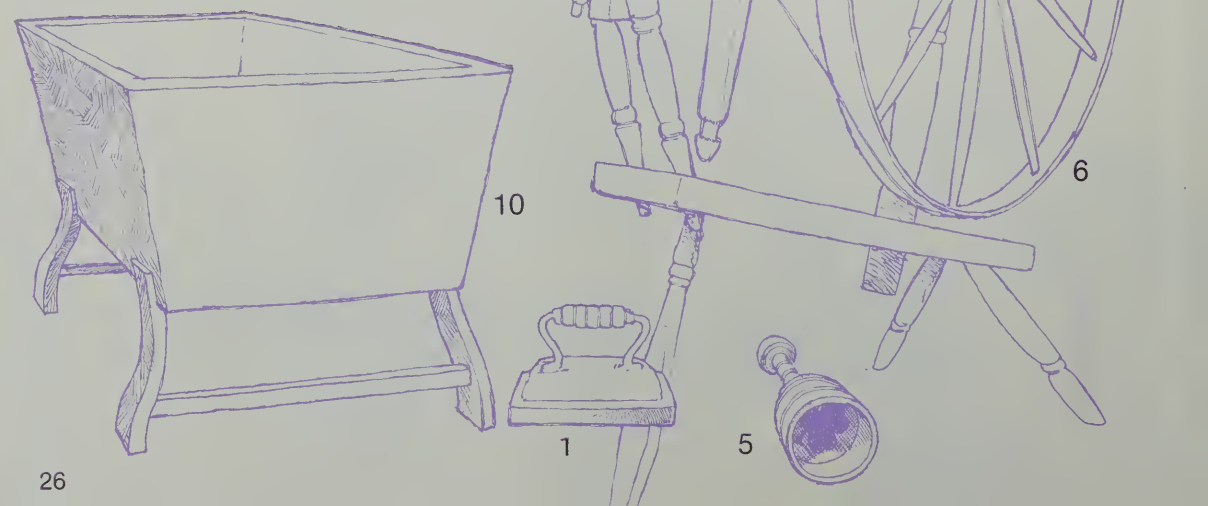
5.
Compare these tools with the tools that the Indians used. What differences do you see? What will this mean in terms of better living?

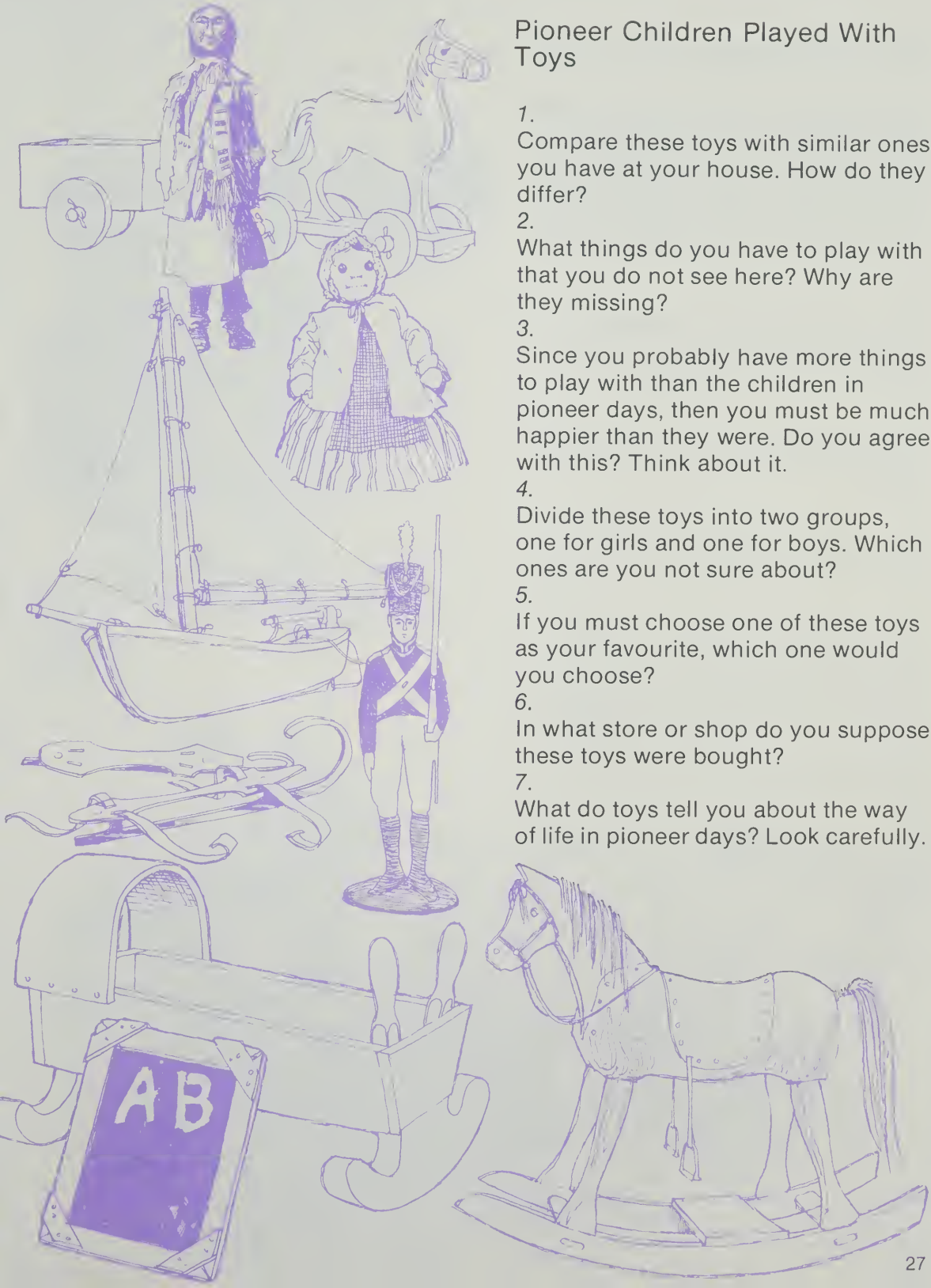
6.
Why was it necessary for the King to provide the settlers with so many of these items? Think of more than one reason.

7.
The men who used these tools were called farmers. Do you think this term properly describes the settler? Explain.



1.
This page has no title. What title would you give it?
2.
Items numbered 1, 2, 3 and 8 all use heat in order to do their work. Can you identify each item? Can you explain how it uses heat?
3.
Items numbered 4, 5, and 9 are all used to make a type of dairy food. Their order of use is actually 4, 9, and 5. Can you identify each item? Can you name the dairy food they help make? Can you tell what each does to help make the dairy food?
4.
Quite a different product is cloth, which can be sewn together to make clothes. Items 1, 6, and 10 are all related to this product in some way. Can you tell what each item is and what its connection with cloth would be? See if you can place these three items in order of use.
5.
Items 7 and 10 are also related. Item 7 would be used before item 10. Try to figure this out.





Pioneer Children Played With Toys

1.
Compare these toys with similar ones you have at your house. How do they differ?

2.
What things do you have to play with that you do not see here? Why are they missing?

3.
Since you probably have more things to play with than the children in pioneer days, then you must be much happier than they were. Do you agree with this? Think about it.

4.
Divide these toys into two groups, one for girls and one for boys. Which ones are you not sure about?

5.
If you must choose one of these toys as your favourite, which one would you choose?

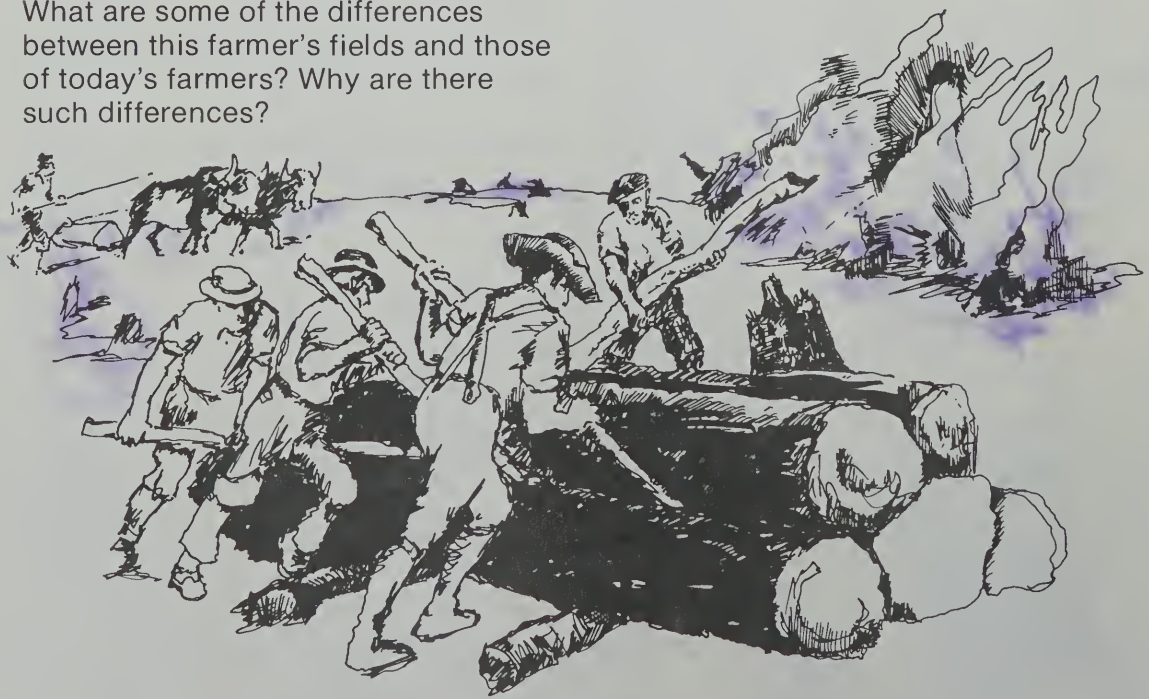
6.
In what store or shop do you suppose these toys were bought?

7.
What do toys tell you about the way of life in pioneer days? Look carefully.

The First Farmer

Farming was the most important way of making a living in the Niagara Region when it was first settled. When the farmer first began to grow crops, the land was not ready until a great deal of work had been completed.

1.
Make a list of the jobs that had to be finished before planting of the farmer's crop could begin.
2.
Why would the farmer find these jobs very difficult to complete in the early 1800's?
3.
What helped to make it possible to get these jobs done?
4.
What does the drawing to the right tell you about the farmer's first home?
5.
What are some of the differences between this farmer's fields and those of today's farmers? Why are there such differences?



The Farmer's Home

The First Home

After about 8-10 years, the farmer usually began to build a second home to replace the first house he built on arriving in the Hamilton region. The two drawings on this page show the first and second homes of the farmer.

1.
Why would the farmer probably have time to build a new home after 8-10 years on his farm?
2.
What differences do you see between the first farmhouse and the second?
3.
Why has the farmer made these changes? Who probably made many suggestions to improve the new home?
4.
How have houses changed since the second farmhouse shown on this page was built? Why have these changes occurred?

The Second Home

Milling Becomes Important

The drawings on these two pages show a mill which was built in the Hamilton region soon after the first settlers arrived.

1.
Make a list of all the things that are moving in these pictures.

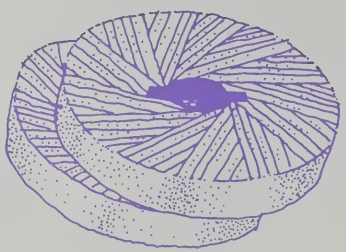
2.
What are some of the reasons for the various types of movement you have listed?

3.
Which person in the picture would be a farmer? What are farmers doing at a mill?

4.
Which person might be the owner of the mill? Explain your answer.

5.
If you were the miller, how would you explain to a farmer the reasons for building your mill in the place shown in the drawings? Make a list of the reasons. Compare your list with other students in the class to add to your answer.

6.
Study the drawing of the two stones on this page. What do you think these two stones are called? What part would they play in the operation of the mill? Give some reasons for your answer.



A Water-Powered Grist Mill

How a Mill Works

When the Hamilton region was first settled, sources of power such as oil, natural gas, electricity and steam were not used to help man in his work. The only forces which were used by men were animal power, wind and gravity.

1.
Find out what the word "gravity" means.

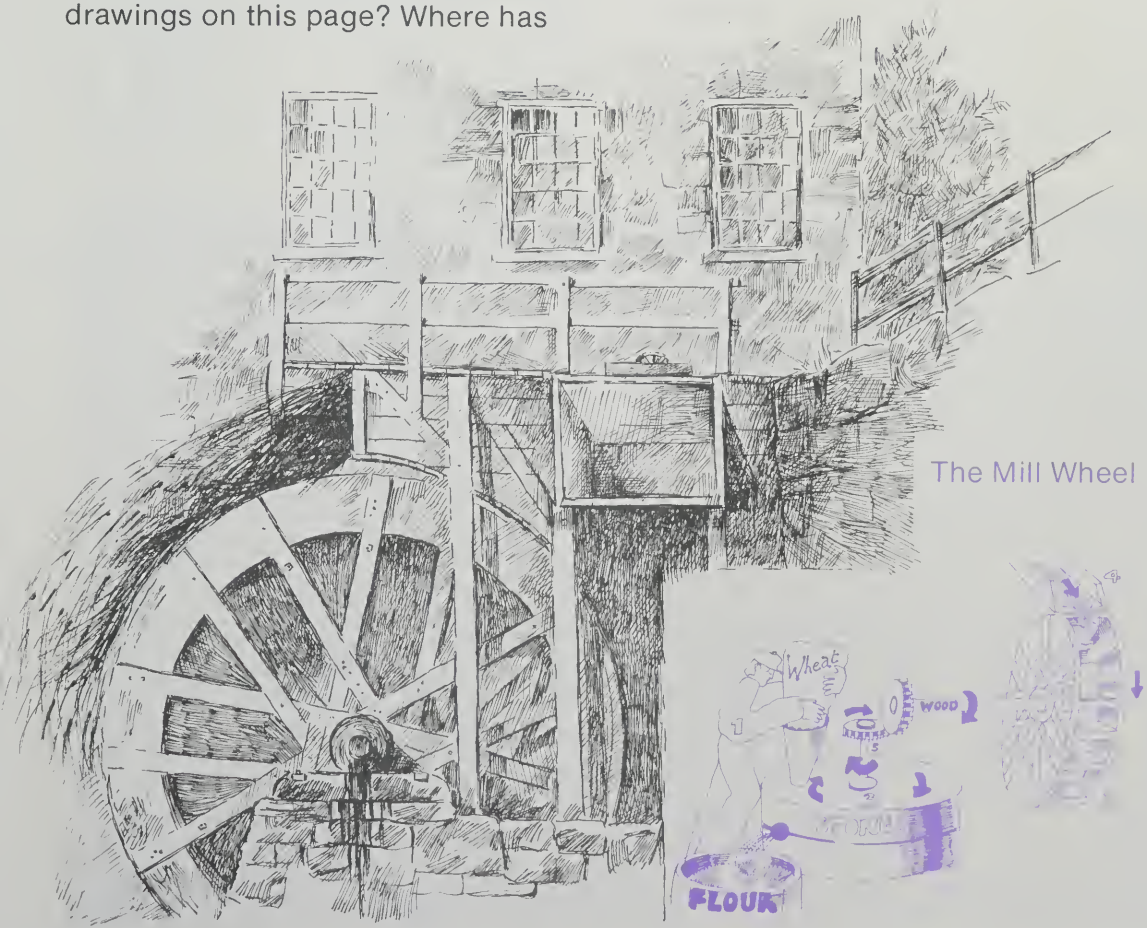
2.
What game could you make up to show the effect of gravity?

3.
Where is gravity at work in the drawings on this page? Where has man made use of this force for his own benefit?

4.
Why is gravity a good force to use?

5.
Where would you place the following labels on the bottom diagram? Use the numbers.

Millwheel
Grindstones
Miller with wheat
Driveshaft
Millrace

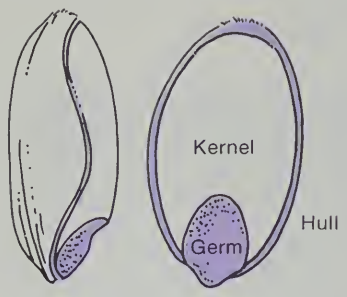


The Mill Wheel

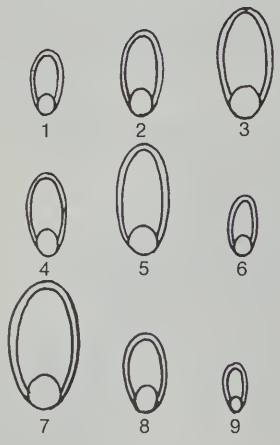
Activities Around the Mill

The main crop in the Hamilton region in the early 1800's was wheat. The two drawings on this page show the wheat plant and a single wheat grain. Wheat was grown to provide the farmer and his family with bread to eat and also to sell in exchange for other things they could not produce themselves.
Once the wheat was grown and harvested, it was still necessary to separate the kernel of wheat from the *hull* and the *germ.* This was often done at the mill.

1.
Look at the drawings and find the hull, kernel and germ which were mentioned above.
2.
Which part of the wheat plant is most useful?
3.
Study each of the numbered wheat grains in drawing number B Which wheat grains are the most valuable? Which are the poorer wheat grains? Explain your answers.
4.
How might the miller separate the best wheat grains from the poorer ones, as shown to the right?
5.
There is very little waste of wheat by the farmer or miller. How can you tell? Why is little wheat wasted?

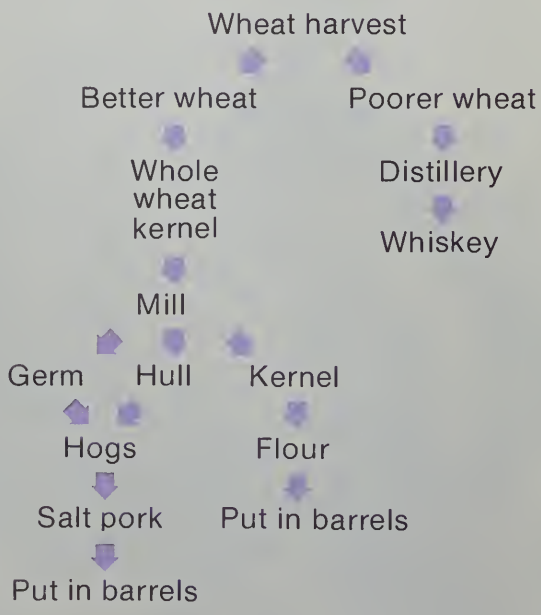


A A Single Grain of Wheat



B Wheat Grains

C The Wheat Plant



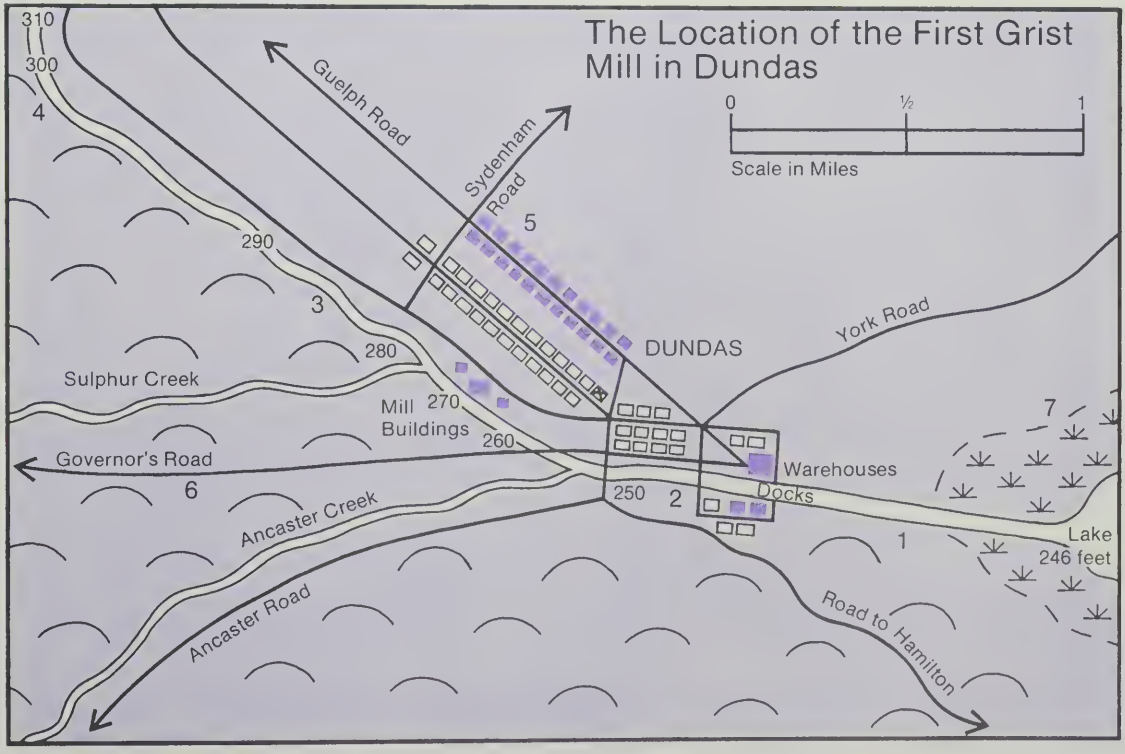
The Location of the First Grist Mill in Dundas

The map shows the location of an early flour (or grist) mill in the town of Dundas, west of Hamilton. This mill was first built in 1805 and remained a mill for over 160 years. This would suggest the miller chose an excellent place to build his mill.

1.
Prove that the miller made a good choice in locating his mill. Give as many reasons as you can.
2.
Why is there more than one building to the mill? (Use the chart on the opposite page to help you.)
3.
What reasons would the stores and banks have to locate in the town of Dundas? What might they sell?
4.
What products would you expect to find in the warehouses? What type of containers would these products be in?
5.
Two mills were built to grind grain in Dundas after the map below was drawn. These mills were located at two of the numbered points on the map. Which two locations would you expect these millers to choose when they built their mills? Give reasons for your choices.

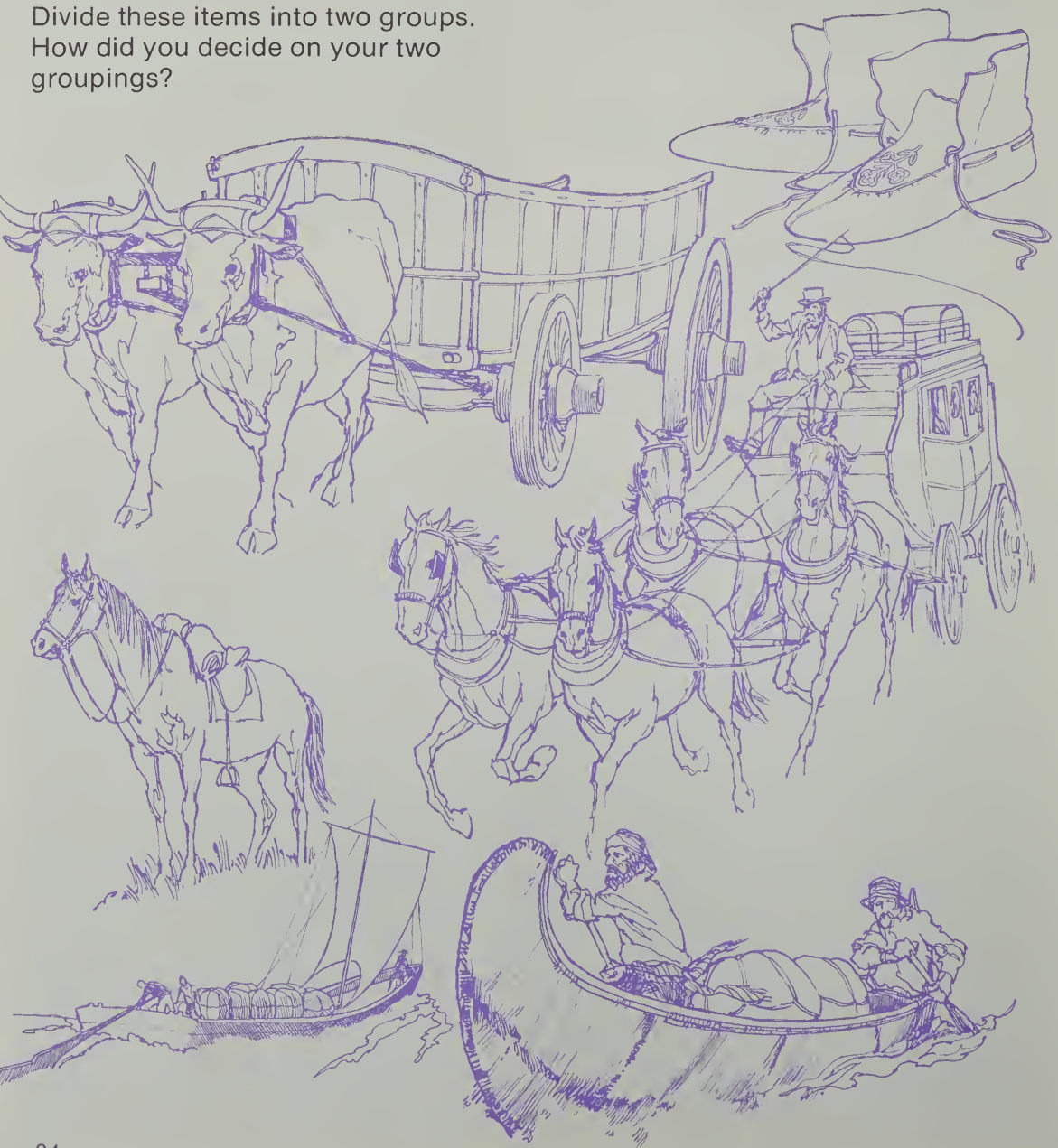
LEGEND

- Road
- Hills
- Marsh
- Town Hall
- Stores & Mill
- Houses
- Stream with elevation in ft. above sealevel (290)



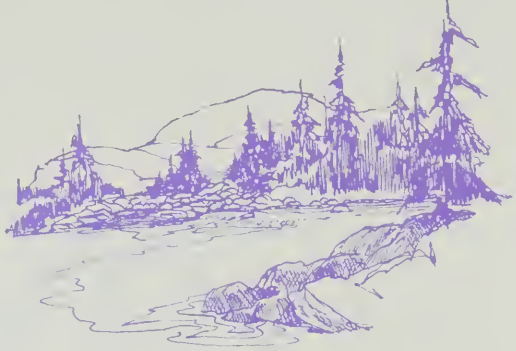
A Picture Puzzle

1.
Can you identify all the things pictured on this page?
2.
What one thing do they all do?
3.
Divide these items into two groups. How did you decide on your two groupings?
4.
Can you think of any more things that could be added to your two groups? Why are they not shown here? Discuss this with the rest of the class.



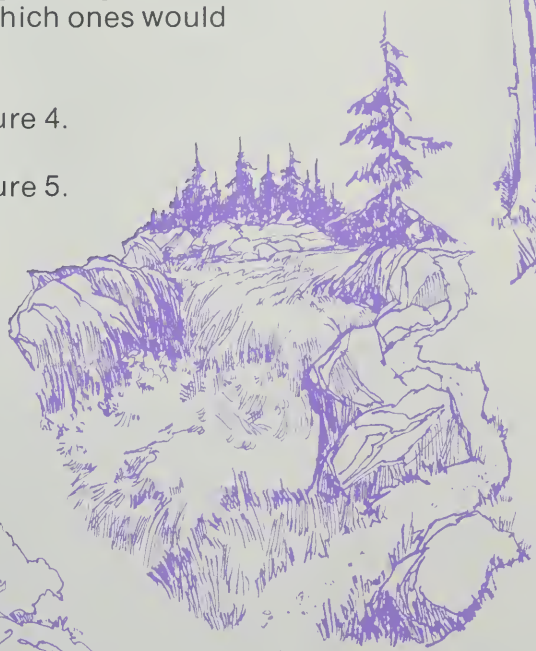
Another Part of the Puzzle

1.
If you had to travel through a region that looks like picture 1, which one of the things on page 34 would you choose to help you? Which one would you choose second? Which ones would be of no use?
2.
If the region looked like picture 2, what would be your first choice from among the things shown on page 34? Second choice? Which ones would be of no use?
3.
Make first and second choices (from page 34) for travelling through the region in picture 3. Which ones would be of no use?
4.
Do the same for picture 4.
5.
Do the same for picture 5.

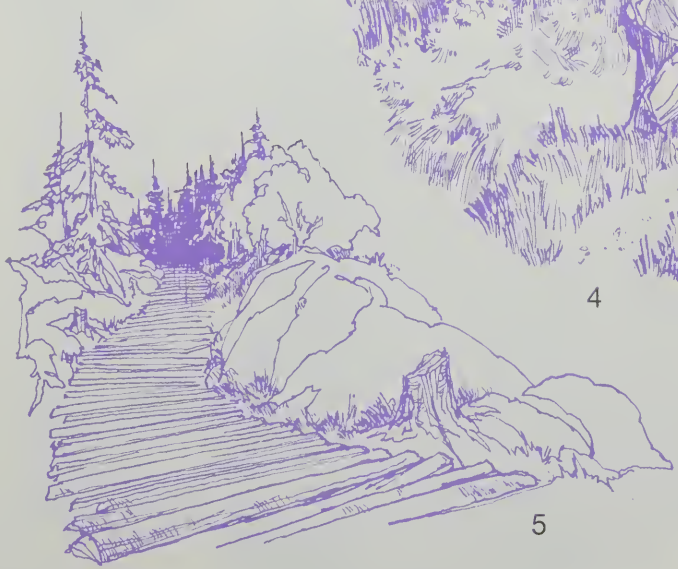


1

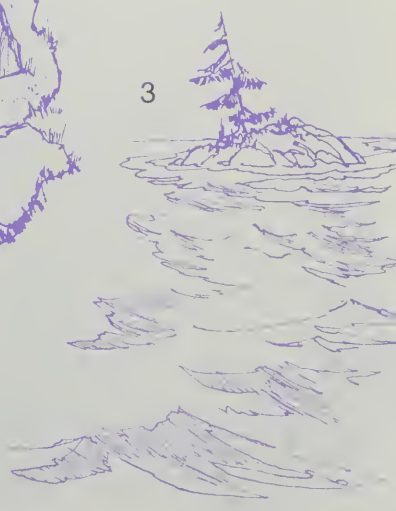
2



4



5



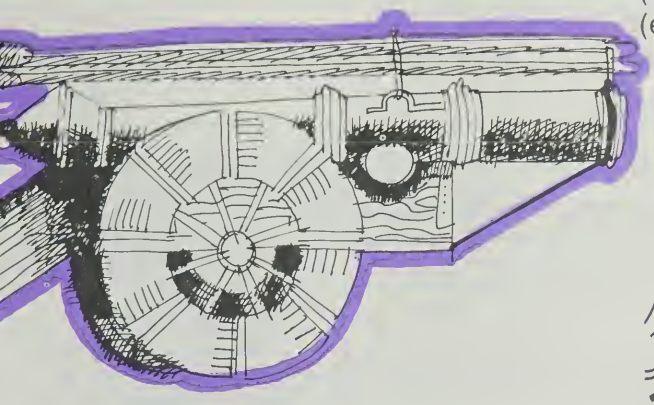
3

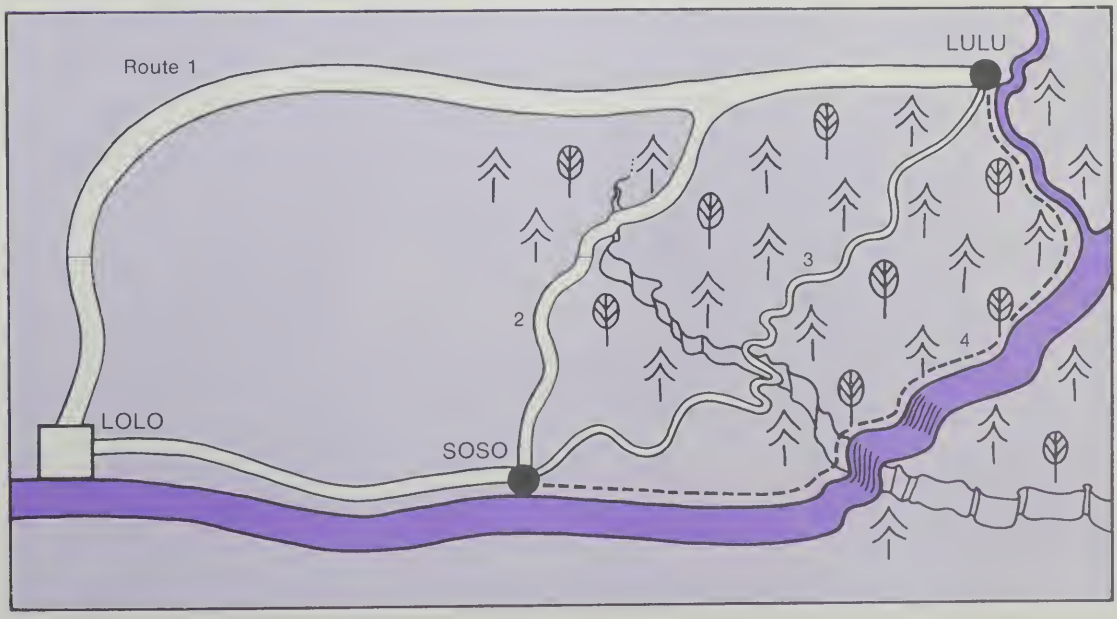
FLOUR

A Third Part of the Puzzle

1.
Here are five pictures showing what you might be asked to carry with you on your journey. Decide which of the ways shown on page 34 is, in your opinion, the best means of carrying each of the items that you see here. Explain your choice. Why is it difficult to get everyone to agree?

2.
Here is a map showing the area through which you will journey. You are told to go from the village of LOLO to the backwoods community of LULU. Decide the route you will take and the means by which you will travel if you are carrying:
(a) the sealed letter,
(b) the family of five,
(c) six packs of furs,
(d) five barrels of flour,
(e) the cast-iron cannon.





The Steamboat

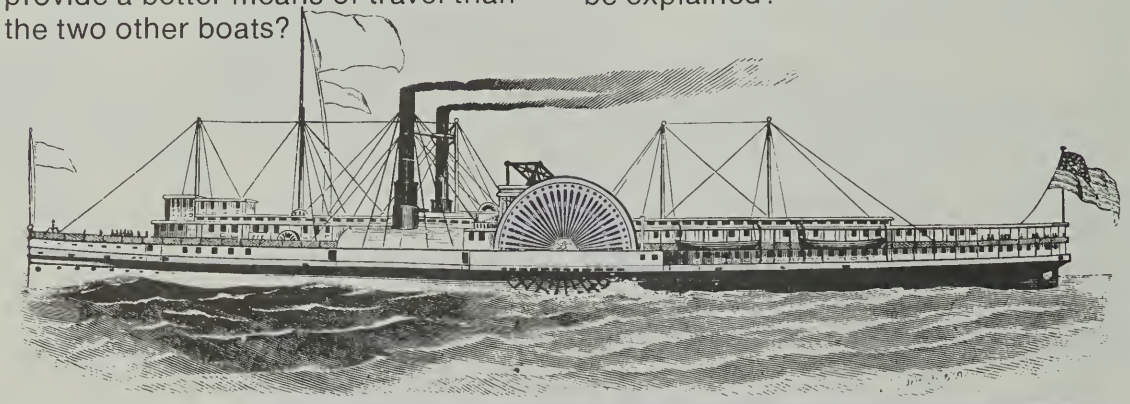
1.
The *Steamboat* is also a means of travel. Why is it called a *Steamboat?*

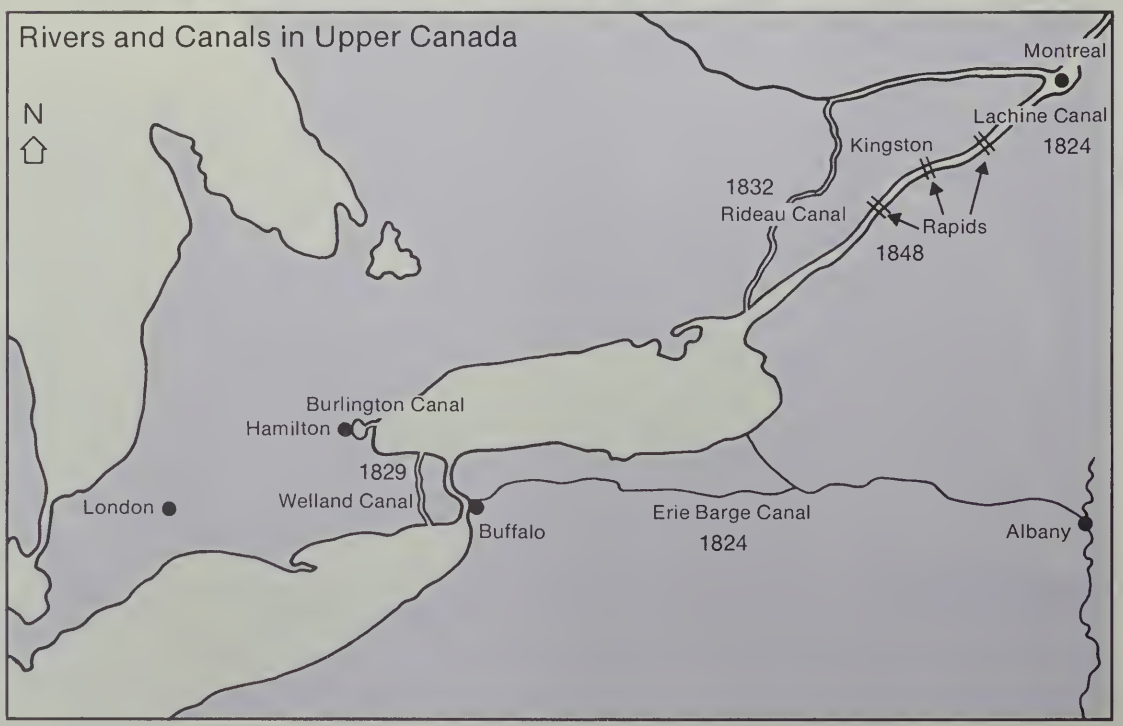
2.
Why was the *Steamboat* not included with the other boats shown on page 34?

3.
In what ways can a *Steamboat* provide a better means of travel than the two other boats?

4.
According to the map, what improvements were necessary in order to make real use of the *Steamboat?*

5.
In 1813 it cost about $1,000 to take a 2400 pound cannon up-river to Kingston. In 1835 it could be done for only a few dollars. How can this be explained?

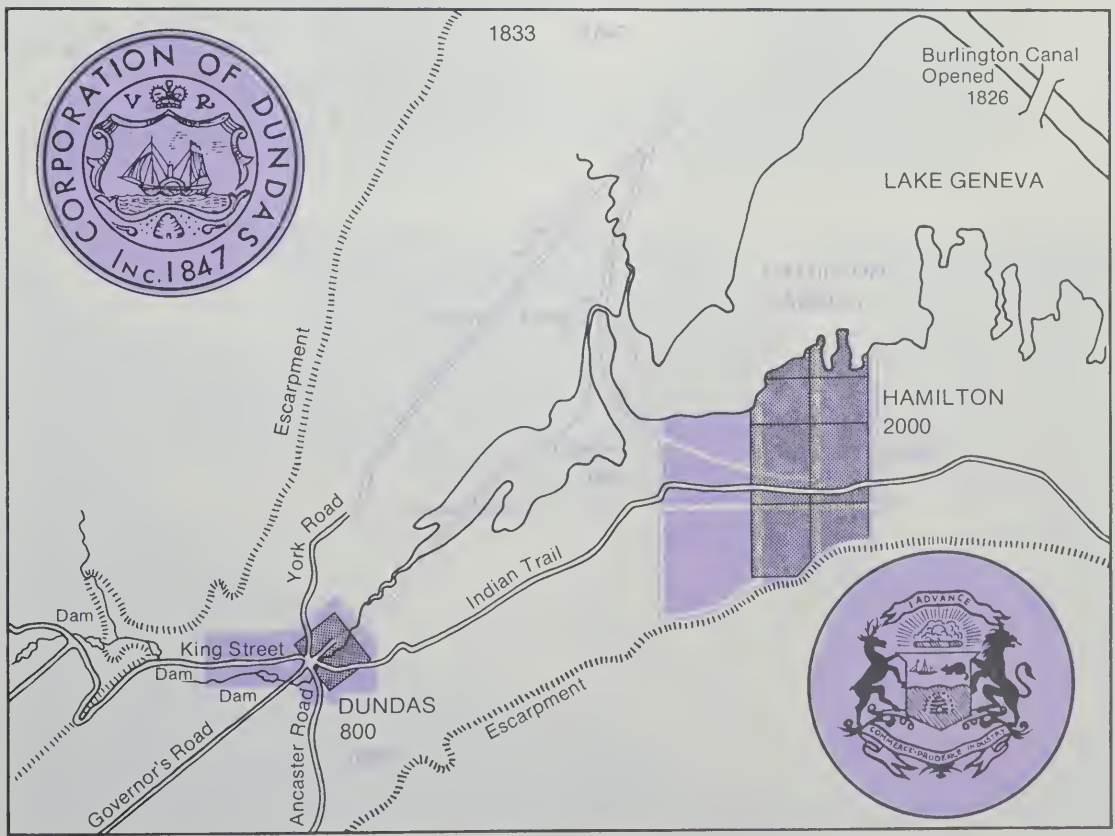




When this map was prepared, Dundas and Hamilton were still quite small, but both were very eager to grow. The people of Dundas were certain that they had a far better location than Hamilton, and that before long would become much more important than Hamilton.

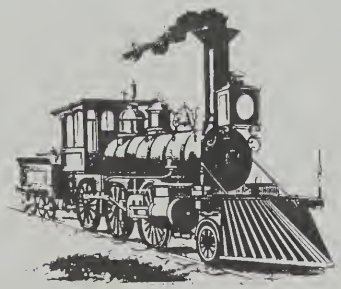
1.
Present arguments favouring Dundas.
2.
What does Hamilton have to offer that might attract settlers?
3.
What reasons can you suggest as to why Dundas never caught up to Hamilton?

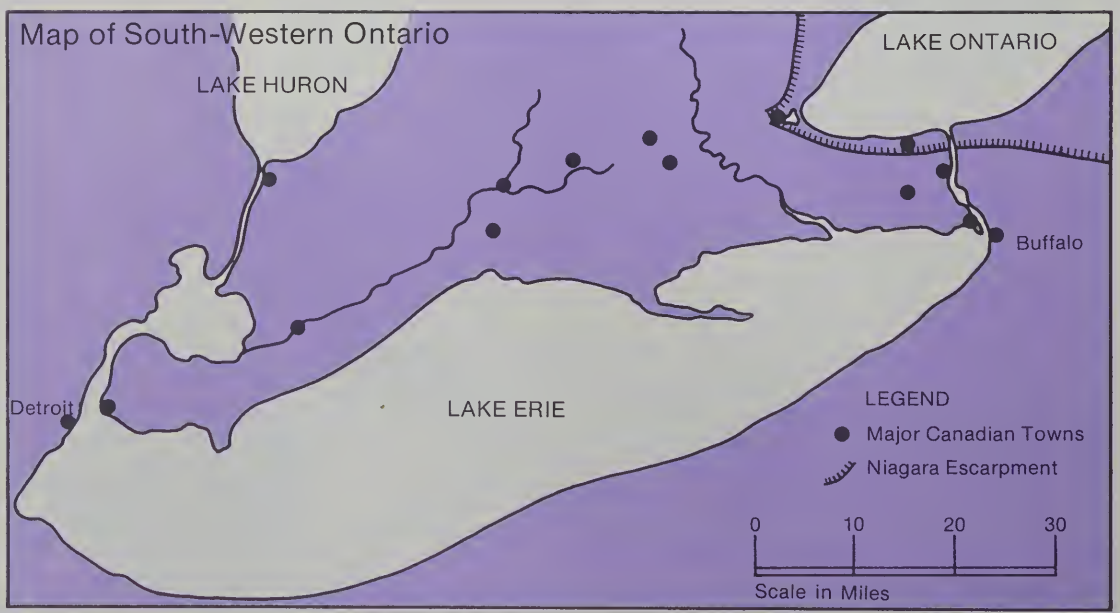
4.
Both Dundas and Hamilton had official community crests, or emblems.
a) What evidence can be found on these crests that both communities wanted to encourage trade and industry?
b) Dundas confidently placed a steamboat on its crest. Actually, the coming of the steamboat meant the beginning of the end for Dundas' hopes of becoming a major port. Why would this be?
c) Hamilton became known as the "Ambitious City." What does this expression mean?) In what ways does Hamilton's crest suggest this?



The Steam Engine

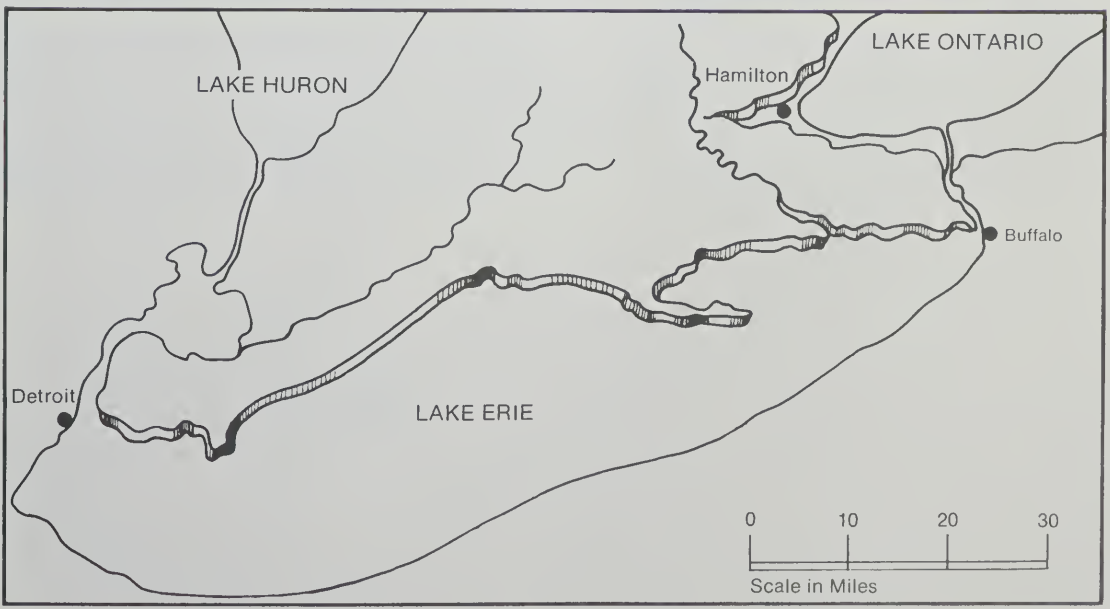
1.
The Steam Engine provides another means of travel. In what way can it be grouped with the ox-cart and the stage-coach?
2.
In what way can it be grouped with the boat seen on page 38?
3.
Why might the people of Dundas have reason to think their future was with the railroads?
4.
A railway was planned that would connect Detroit with Buffalo by going through Canada. Calculate the saving in miles if the railway goes through Canada rather than through the United States of America? The map on this page can help you.
5.
What route would you mark out for the railway? Draw it on the map on this page. Be prepared to defend your choice of route. (Keep in mind that Steam Engines do not like to go up steep hills, and need expensive iron rails on which to travel.)





A Special Kind of Map

1.
Why is this called a "special" map?
2.
Did you choose a route along the shore of Lake Erie? What does this map tell you about your choice?
3.
Did you choose a route along the shore of Lake Ontario? What difficulties does this route present?



Here is part of a letter (slightly altered) written by Sir Allan MacNab, a very well-known man in government who came from Hamilton. He is writing to a Mr. Isaac Buchanan, one of Hamilton's chief supporters of the new railway.

.....I have received a letter from John A. Macdonald of Kingston asking me to write you about the Great Western Railway affair. The railway will go ahead now without a doubt. Last session I carried a bill through Parliament allowing communities through which the railroad will pass to buy stock in the venture—this bill was passed after a tremendous fight. The result is as follows:

Hamilton has taken	$100,000
Private Stock Purchase	$ 60,000
Galt	$ 25,000
Dumfries	$ 25,000
London	$ 25,000
Middlesex	$ 50,000
	$285,000
Government Loan	$214,000
	$499,000

The price of building the railroad to LONDON is $428,000. WOODSTOCK and BRANTFORD will also take large amounts.

NEW & IMPORTANT ARRANGEMENT.

ROYAL MAIL THROUGH LINE

FOR

KINGSTON, COBOURG, PORT HOPE, DARLINGTON, TORONTO AND HAMILTON.

ONLY LINE without TRANSHIPMENT.

THE FOLLOWING FIRST CLASS UPPER CABIN STEAMERS

COMPOSE THIS LINE, VIZ.:—

KINGSTON, (Iron)	Capt. KELLEY,
BANSHEE,	" HOWARD,
PASSPORT, (Iron)	" HARBOTTLE,
NEW ERA,	" MAXWELL,
CHAMPION,	" SINCLAIR,
MAGNET, (Iron)	" TWOHY.

They were built expressly for LAKE and RIVER NAVIGATION—COMMODIOUS, STAUNCH and in every respect WELL FOUND with every requirement for SAFETY, and fitted and furnished with EVERY MODERN CONVENIENCE and COMFORT.

ONE of these Steamers leaves the Canal Basin, Montreal, EVERY DAY (except Sundays) at 9 A. M., and LACHINE on the arrival of the NOON train from Montreal, for the above and intermediate Ports DIRECT WITHOUT TRANSHIPMENT, CONNECTING AS FOLLOWS

At Hamilton, with the GREAT WESTERN RAILWAY for *London, Chatham, Windsor, Detroit, Chicago, Galena, St. Paul, Milwaukie, &c.*

At Toronto, with the NORTHERN RAILROAD for *Meaford, Green Bay and all Ports on Lake Michigan.*

At Niagara, with the ERIE AND ONTARIO RAILROAD for *Niagara Falls, Buffalo, Cleveland, Toledo, Columbus, Cincinnati, &c.*

TO THE TOURIST OR PLEASURE SEEKER,

This Line affords a most desirable conveyance—comfortable, pleasant and expeditious, passing through the delightful scenery of the Lake of THE THOUSAND ISLANDS and all THE RAPIDS OF THE ST. LAWRENCE BY DAYLIGHT.

TO FAMILIES MOVING WEST THE ADVANTAGES ARE UNEQUALLED,

The Steamers running through WITHOUT TRANSHIPMENT, and DIRECT to the Railway DEPOT at TORONTO and HAMILTON. The ANNOYANCE and DAMAGE in the removal of Luggage (subject to Transhipping Lines) is ENTIRELY AVOIDED.

☞ TICKETS, or further information can be procured from C. F. MUCKLE, at the Hotels, on board of the Steamers, or at the Office, 26 McGill Street.

ALEX. MILLOY, Agent.

Royal Mail Through Line Office,
26 McGill Street
Montreal, October, 1857

From Lovell's *Canada Directory*

STEAMSHIP ADVERTISEMENT, 1857

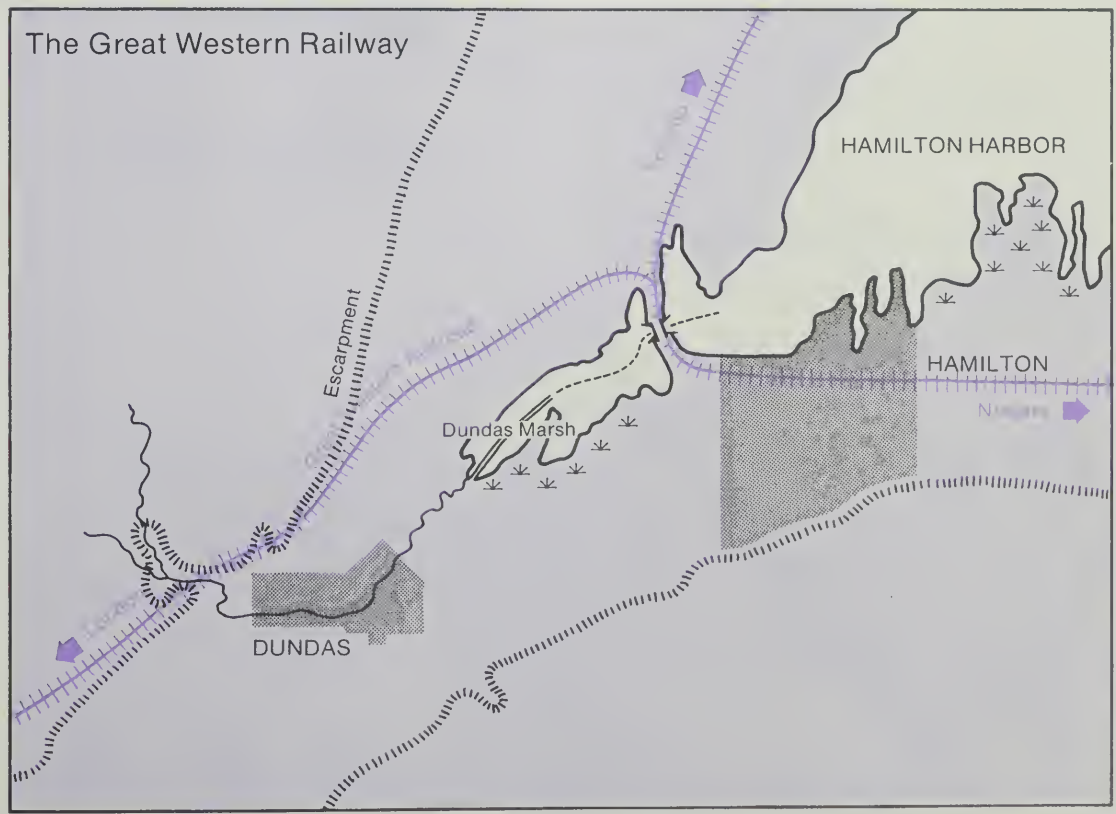
1.
Eventually, the railway connecting Detroit with Buffalo was built. It was named the Great Western Railway. The G.W.R. ran its tracks through such Canadian towns as Windsor, Chatham, London, Woodstock, Paris, Hamilton, and Niagara Falls. Mark the route of the Great Western Railway on your map of SOUTH-WESTERN ONTARIO.

2.
Why was a straight-line route connecting Detroit with Buffalo not considered practical?

3.
It would seem that the railway planners made an effort to go through as many towns as possible. Why bother, if the main purpose of the railroad is to connect Detroit with Buffalo?

4.
Running the railway into Hamilton was surely a poor choice of route. What makes Hamilton a poor choice of route? What reasons can you see that would cause the railway builders to decide on Hamilton?

5.
Study the map on this page. Why did the railway builders decide to go around the town of Dundas? How does this decision help us answer questions asked on page 39?



Making Steel in the 1940's

How Steel is Made

1.
Steps 1, 2, and 3 show the raw materials used to make iron. What is the meaning of the expression "raw material"?

2.
Which of the raw materials is required in the greatest quantity? Which is the least important raw material by weight? Explain how you made your decisions.

3.
These raw materials are placed in a blast furnace, shown in Step 4. Explain why it is called a "blast furnace."

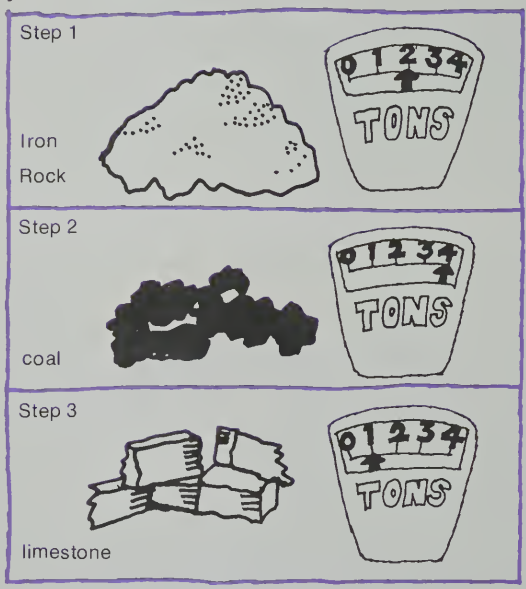
4.
What happens to the raw materials in this step? Explain your answer.

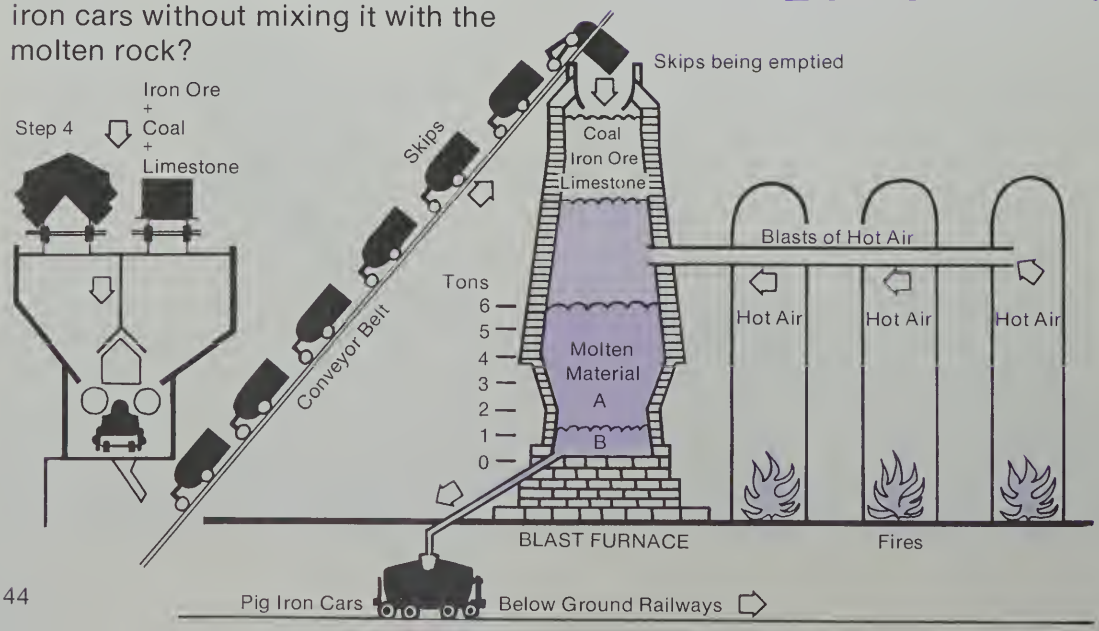
5.
Is the molten iron A or B in the furnace diagram? How can you tell? Identify the material left.

6.
How would you get the molten iron out of the furnace and into the pig iron cars without mixing it with the molten rock?

7.
The molten rock which is left over is called "slag". What use might be made of this waste material?

8.
How many of the skips shown on the blast furnace diagram would contain coal? iron ore? limestone? Explain your answer.



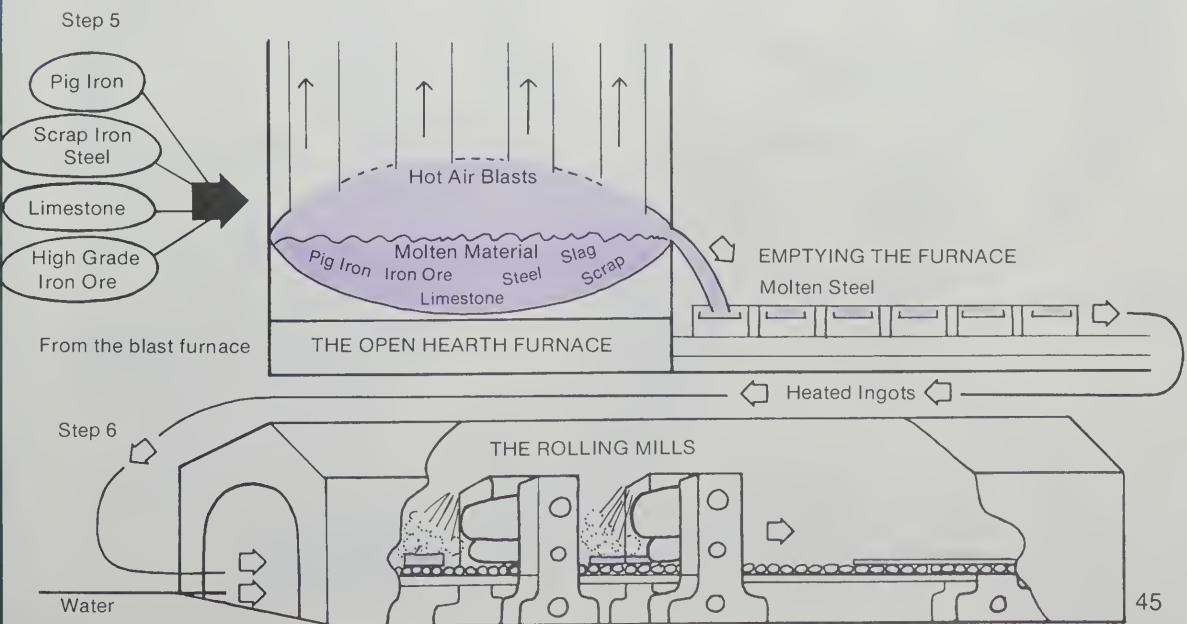


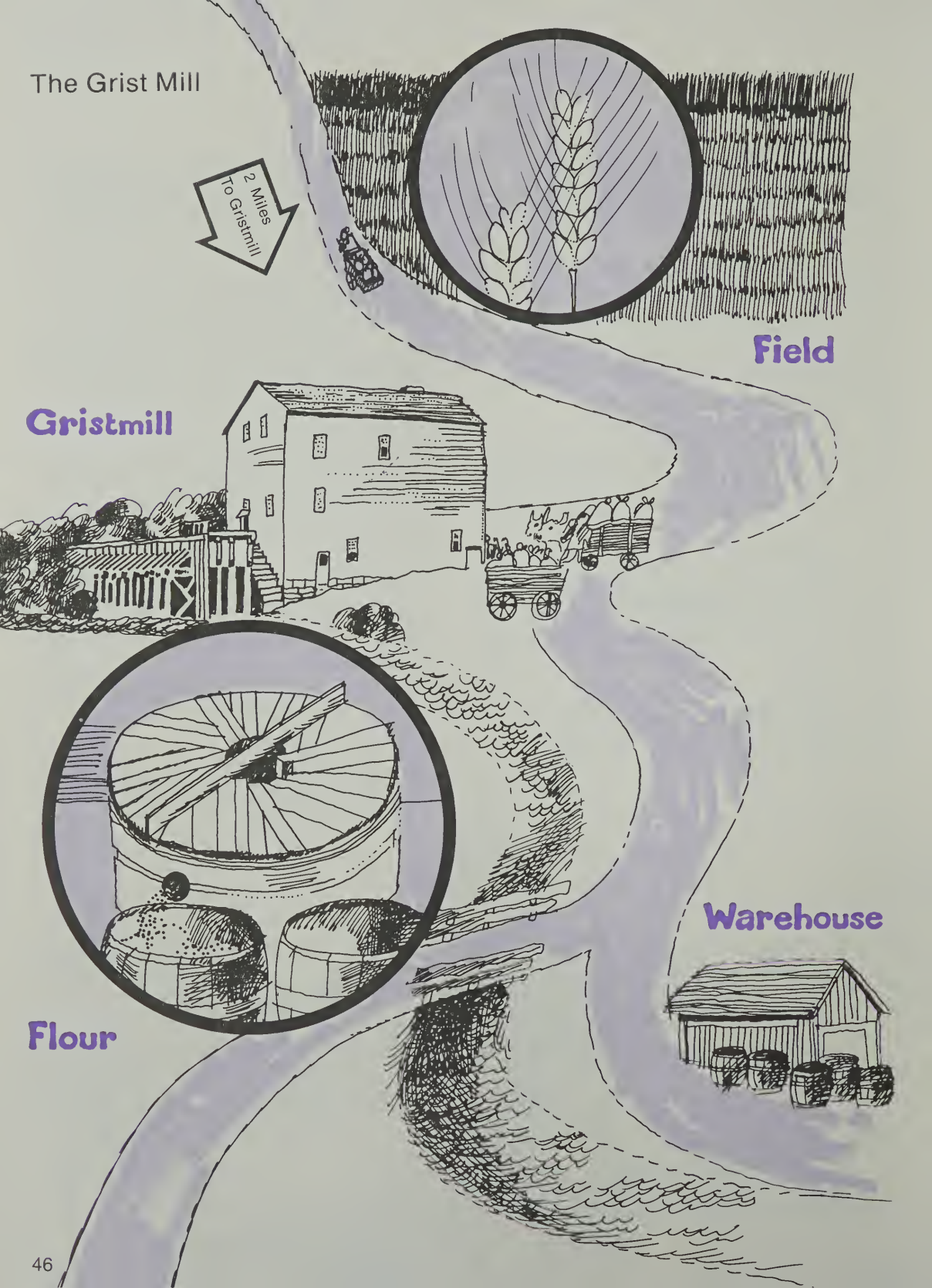
1.
In what ways is the open hearth furnace different from the blast furnace?
2.
List some possible sources of the scrap iron and steel used in this step.
3.
It takes 8 to 9 hours at temperatures of up to 3000° F to complete this step. Why is such heat necessary?
4.
What safety precautions would have to be taken to ensure the safety of the men who work in such a furnace?
5.
The openhearth furnace is one of the steps in iron and steel production which pollutes the air around the steel plant. From the diagram explain why this is true.
6.
Why is Step 6 necessary in the steel making process?

7.
A steel mill such as this one uses great amounts of water and flat land. Explain each of these necessities.

The open hearth furnace, once it is filled with pig iron and the other raw materials shown in the diagram, is heated to melt the mixture of materials. This heating is so intense that it removes the impurities which are contained in the pig iron. These impurities are held in the slag or are carried away by the hot air blasts. The "new" harder and less brittle metal which comes from this furnace is called "steel."

Did You Know?
The iron which comes out of the blast furnace is called "pig iron" because the cars which carry this metal from the blast furnace look like little pigs around their mother!
Pig iron has impurities in it and is brittle. It has fewer uses than steel.




The Grist Mill
2 Miles
To Gristmill
Field
Gristmill
Flour
Warehouse

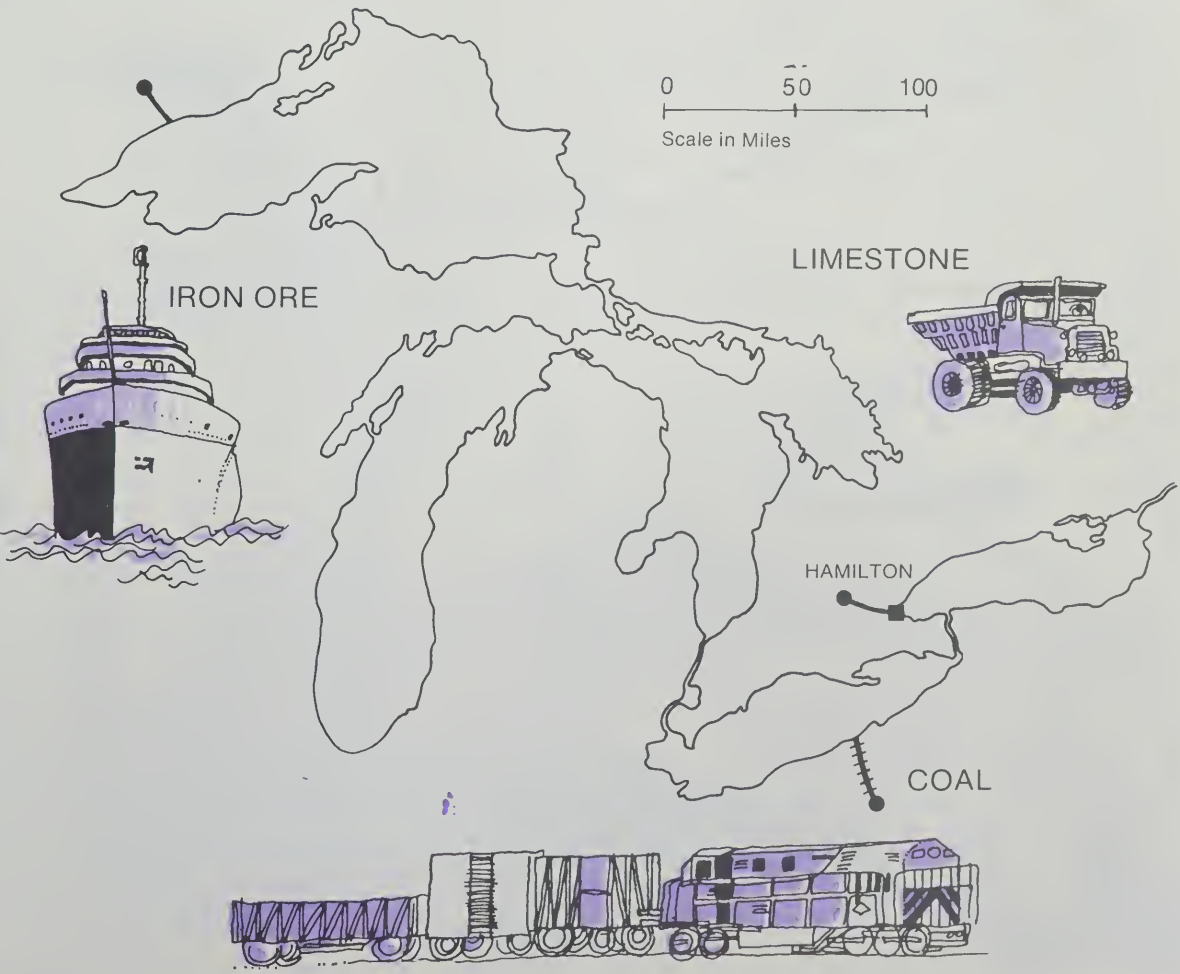
The Iron and Steel Mill

1.
Study the map which shows the grist mill. Compare it carefully with the map for the steel mill.
What are some of the differences between these two maps?

2.
In the iron and steel map the black dots show the places where the raw materials for the production of steel were obtained. Trace this map and mark on the routes each raw material would take to reach Hamilton. Choose the cheapest means to transport each item to Hamilton.

3.
From what country did most of the raw materials come from in 1940? Investigate the sources of the raw materials for the steel companies at Hamilton in the 1970's.

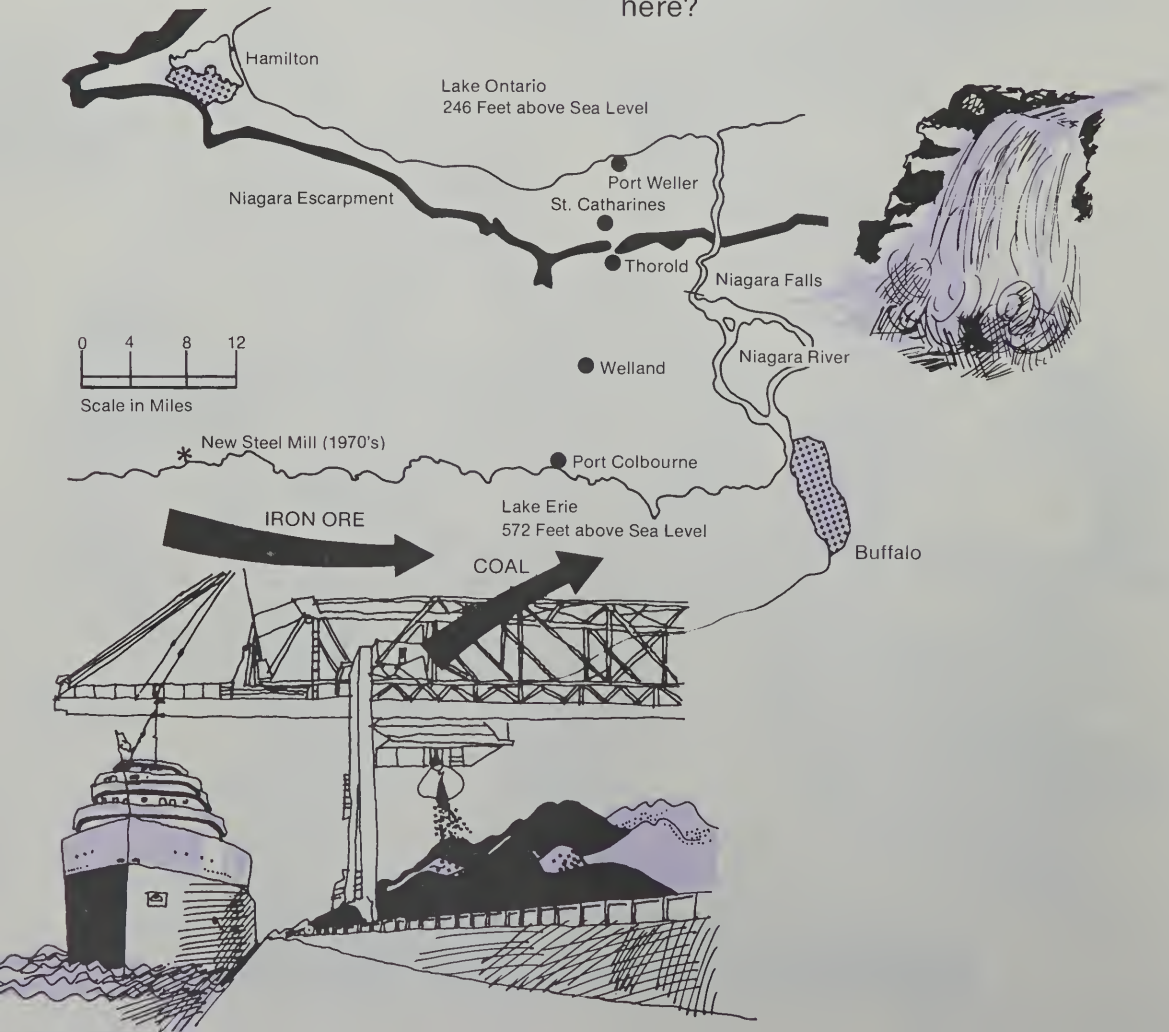
4.
Why is it better for Canada to buy the raw materials and make steel than to buy iron and steel already made?



Getting the Raw Materials to Hamilton

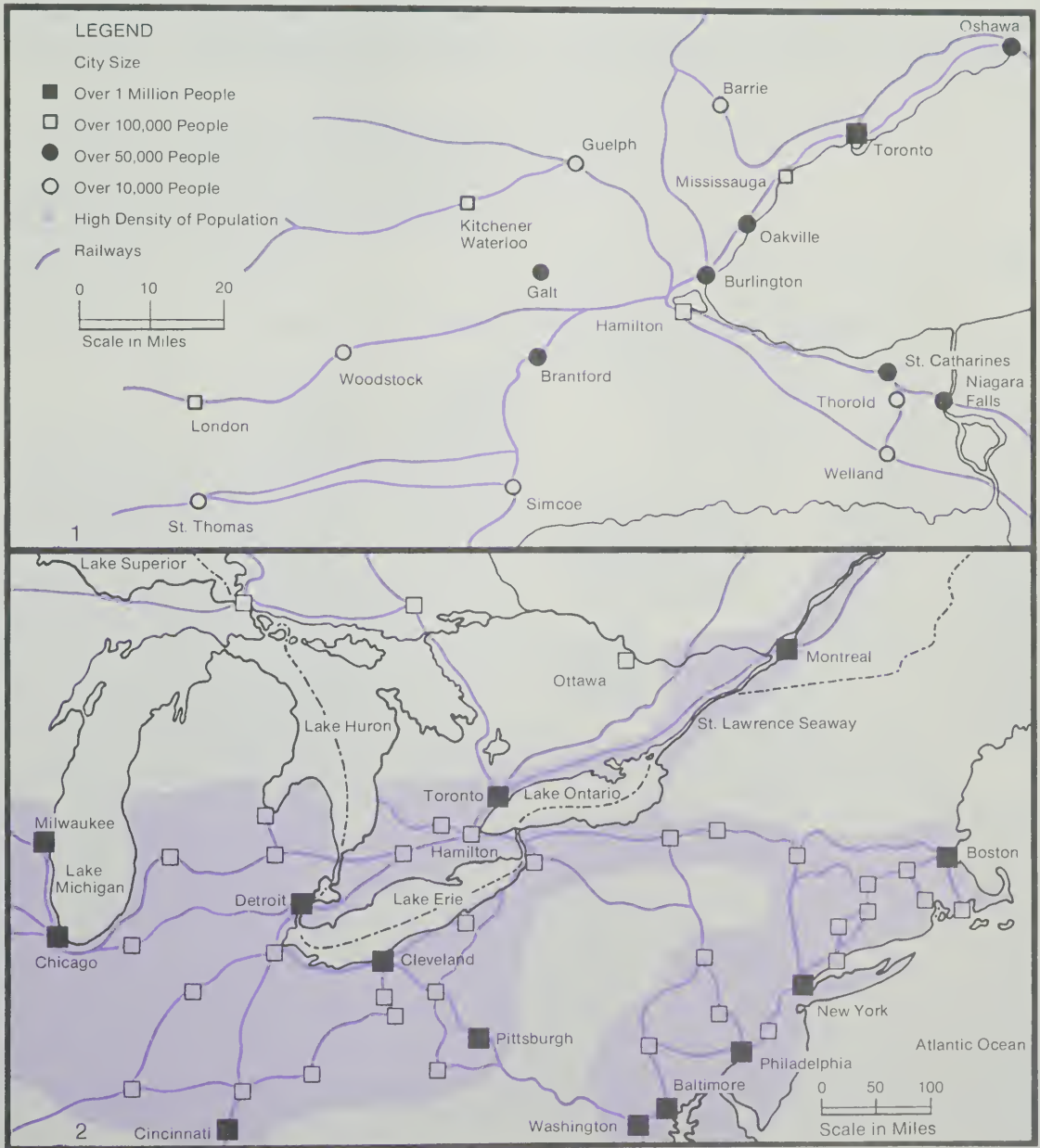
The boats carrying iron ore from Lake Superior and coal from Lake Erie ports can reach the head of Lake Erie at Buffalo easily. From Buffalo to Hamilton, on Lake Ontario, they run into a problem.

1.
What is the problem?
2.
How could this problem be solved?
3.
Use an atlas to find out whether this was the solution.
4.
What explains the position of the five towns from Port Weller to Port Colbourne?
5.
Before what date would this solution have had to be adopted so Hamilton could open its first iron and steel mill? Give your reasons.
6.
The location of the newest steel mill to be built in the Niagara Region is shown on the map. What reasons can you give for locating a new steel mill here?



The Location of Hamilton

1.
What are the most important differences between the two maps on this page?
2.
What do you feel these maps are attempting to show you about the location of Hamilton?
3.
Why is this important to the steel mill which is located in Hamilton?



The steel company in Hamilton decided to build a new factory in 1910 so that more iron and steel could be made in Canada rather than being imported from the United States. In order to do this, they had to build a new and much larger factory. The government of Canada helped the industry by passing laws to make it more expensive for Canadians to buy iron or steel from the United States. Such laws are known as tariffs. These laws made it possible for Canadian steel companies to sell more of their products to other factories in Canada which used steel or iron.

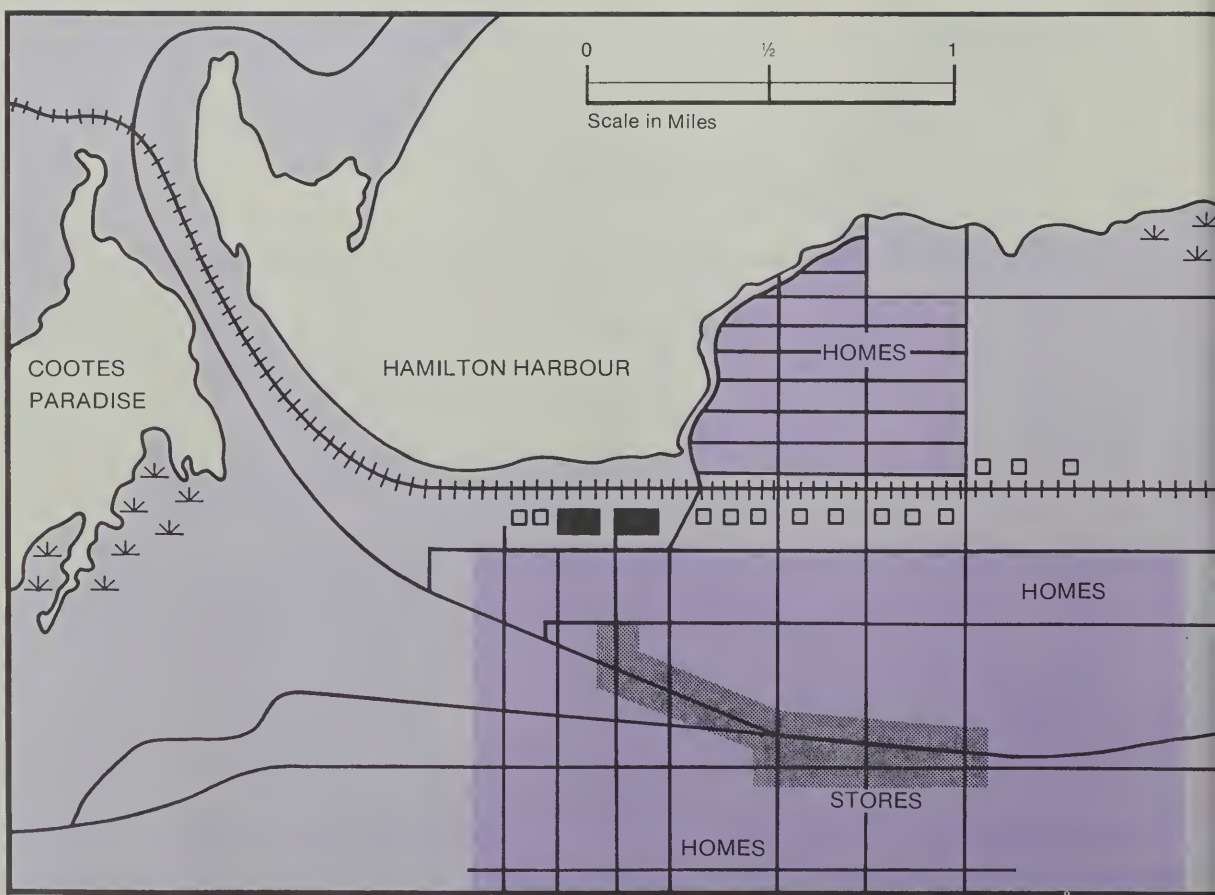
LEGEND

- Industries
- Streets
- Railway
- Marsh
- Original Steel Company 1860-1910

ORIGINAL PRODUCTS

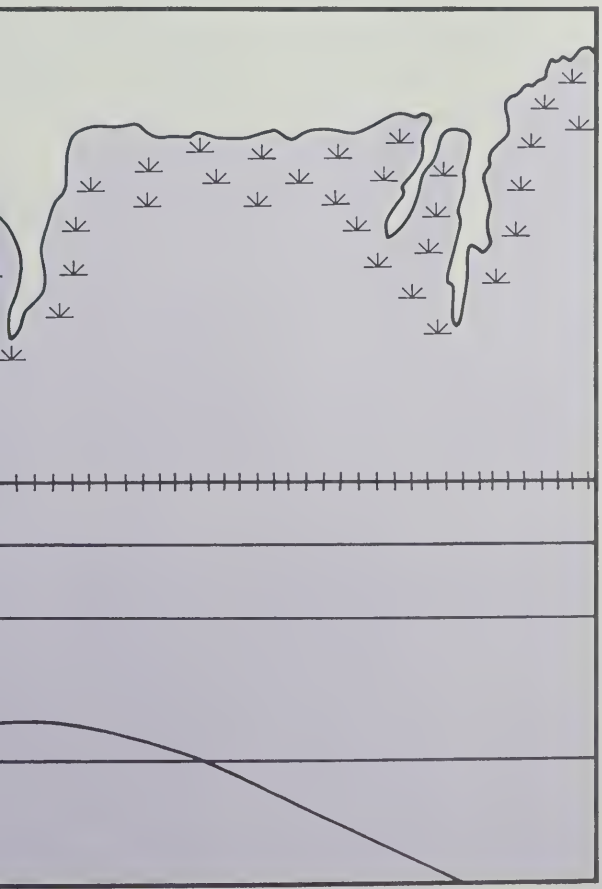
Products: rails, wire, nails, railway equipment, boilers, castings

Source of Pig Iron and Steel = from the United States



1.
Look back to the iron and steel production diagram on pages 44 and 45 of this section.
What steps in the making of steel were not carried out in Hamilton *before* the new, larger factory was built? Give reasons for your answer. Information on this page should help you.

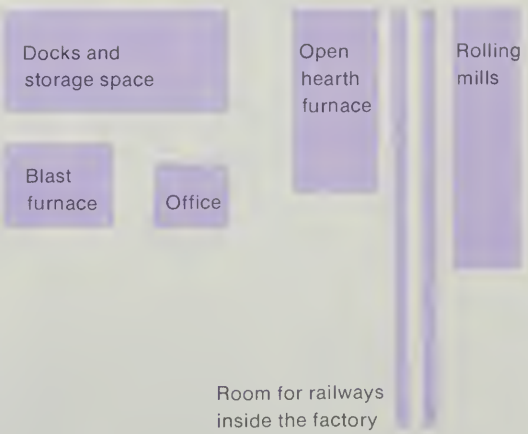
2.
Find the squares and rectangles which represent the buildings and space needed to build an iron and steel mill. What type of land would you need to build these buildings?



3.
Trace the squares and rectangles which show the size of the buildings and the land needed to build the factory. Cut these out and find the best place to build your steel mill, where they can *all* be kept next to one another. Do not build across the roads or railways shown on the map. Compare the location of your steel mill with other choices made by your classmates.

4.
Using the diagrams showing the steps in steel production on the pages 44 and 45, place the buildings in the best arrangement for steel making.

Buildings and space needed for an iron and steel factory



These are the most important users of land in an iron and steel mill.

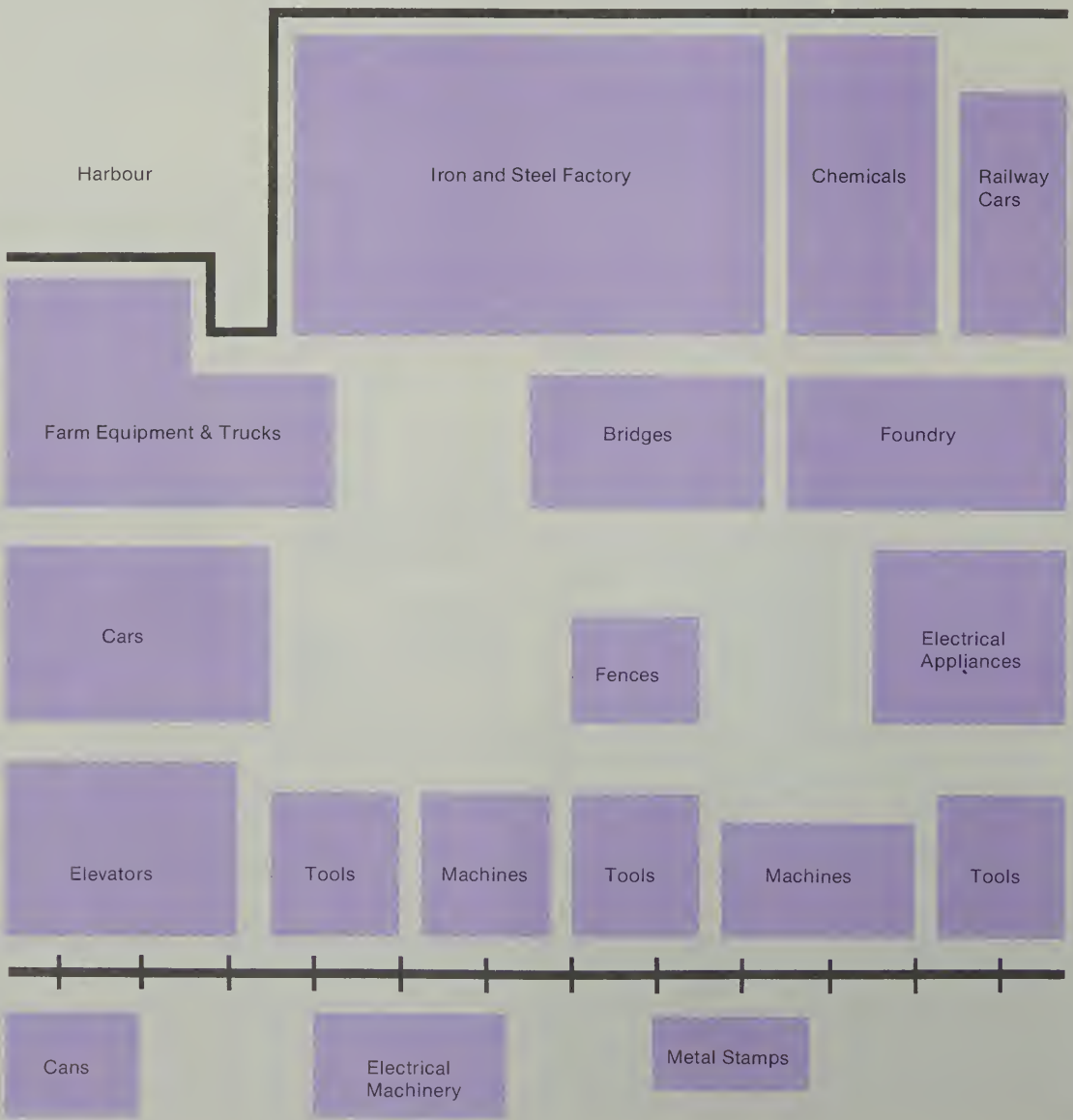
The Steel Family

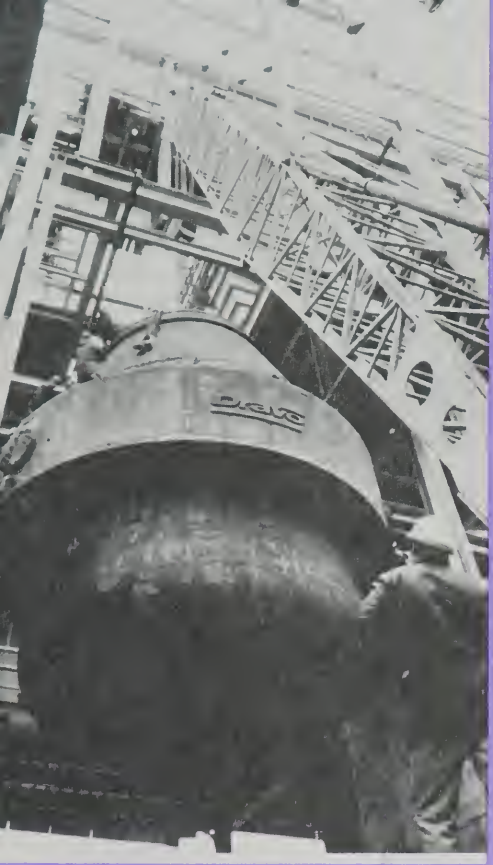
1.
Why could this be called a "steel family"?

2.
What happens to the size of the family members as you get farther from the steel factory? Why does this occur?

3.
Why might there be few workers' homes in this area?

4.
What problems would the workers face, who do live in this area?





DOFASCO
POLLUTION CONTROL

A Community within a Community

1.
List the ways that the picture below is like your school.

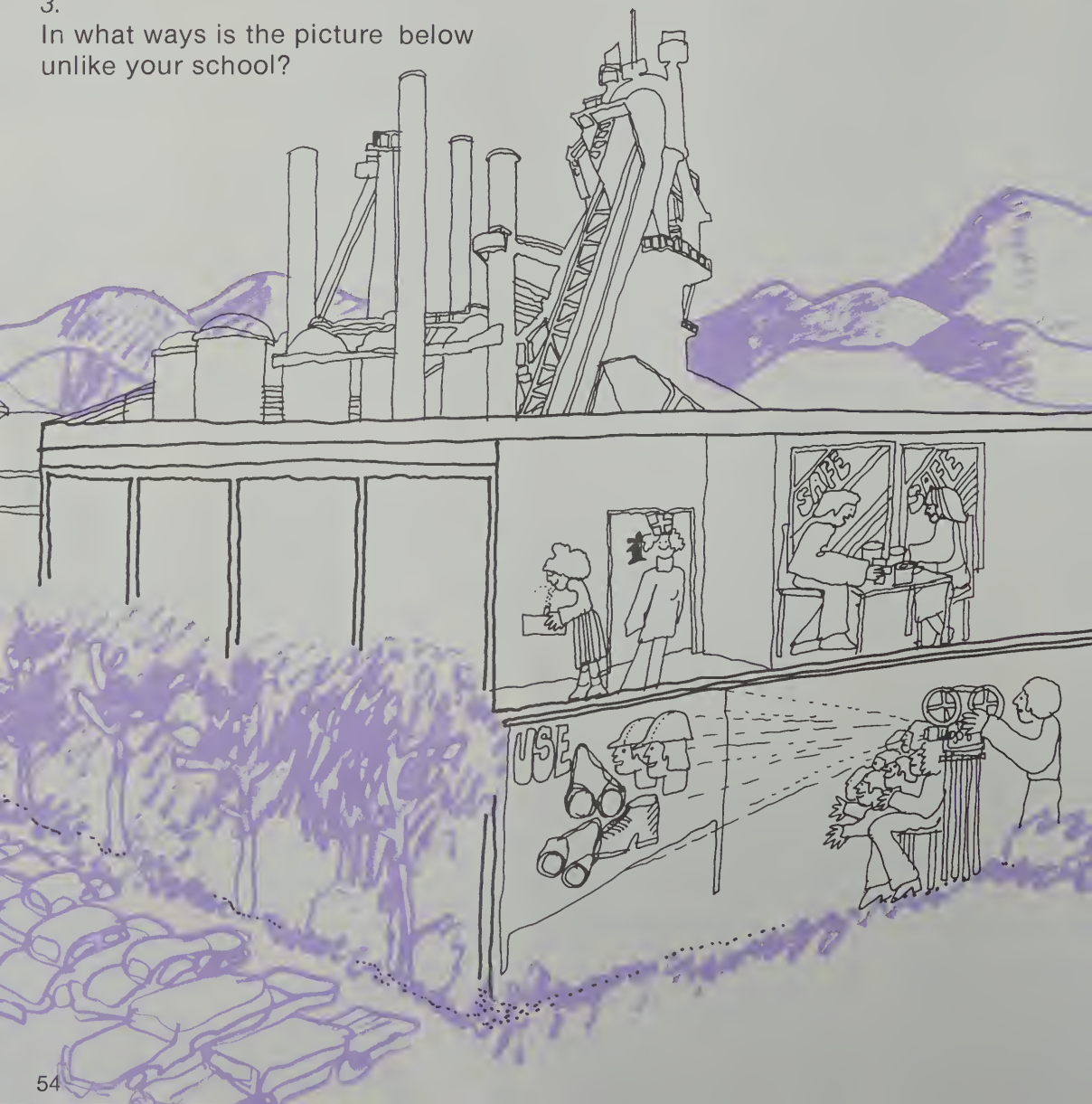
2.
In what ways is the picture below like the place where your father or mother works? Ask them to help you make a list.

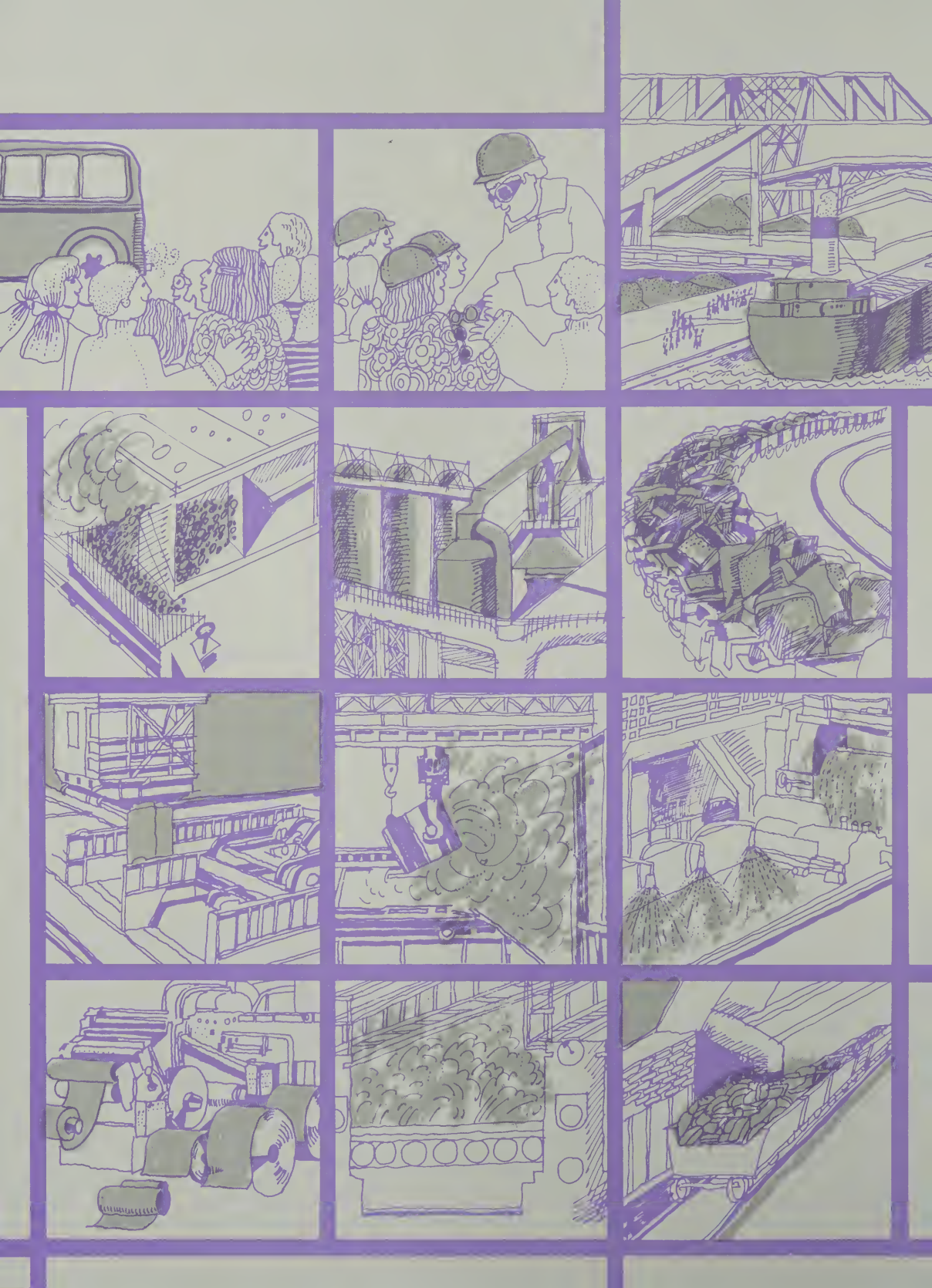
3.
In what ways is the picture below unlike your school?

4.
In what ways is it unlike the place where your father or mother works?

5.
What kind of jobs require hard hats, safety boots and safety glasses?

6.
Why does the title make sense to you?





1.
Look at the trip taken by the students. Why would a teacher wish to take a class on such a trip?

2.
How many different kinds of jobs can you think of that would be done in a steel plant?

3.
Tell how the people of Hamilton benefit from the presence of the steel companies.

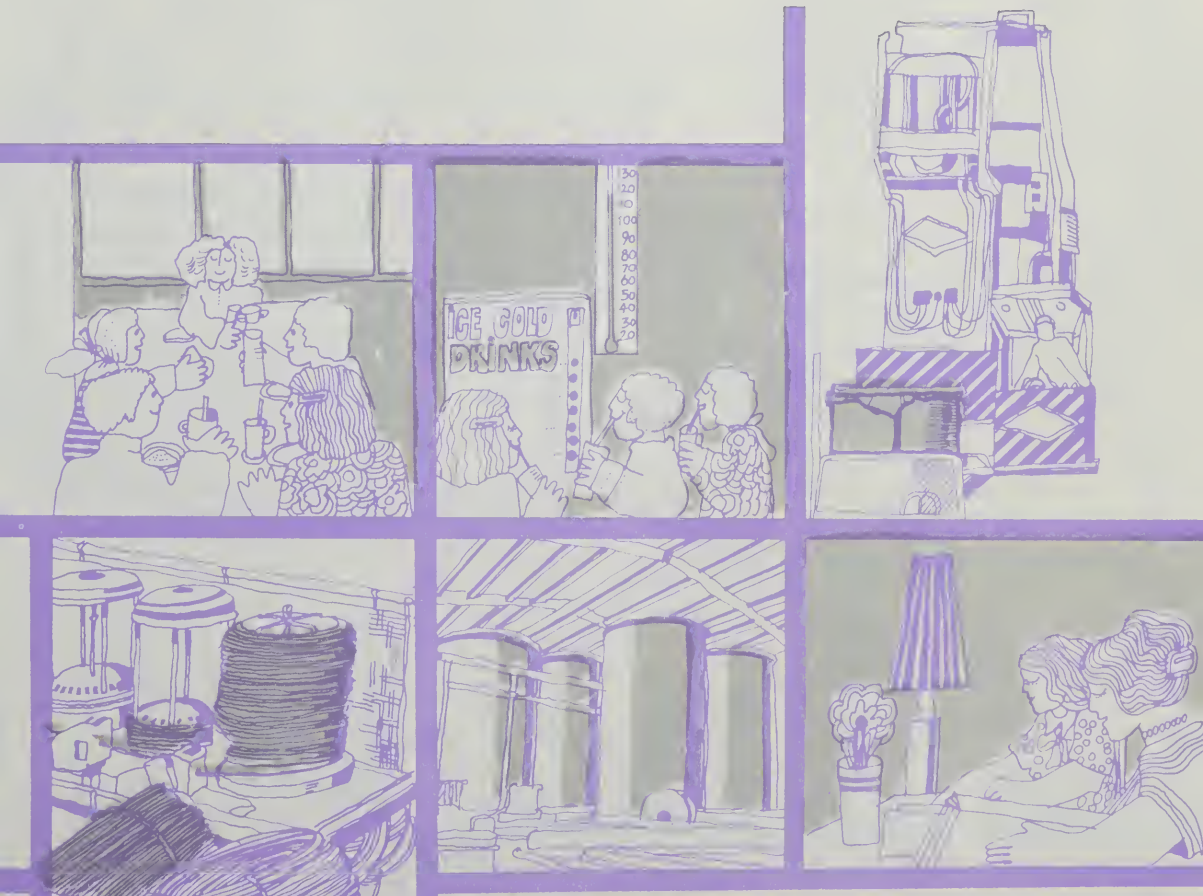
4.
Tell how Canada and other parts of the world benefit from the steel companies of Hamilton.

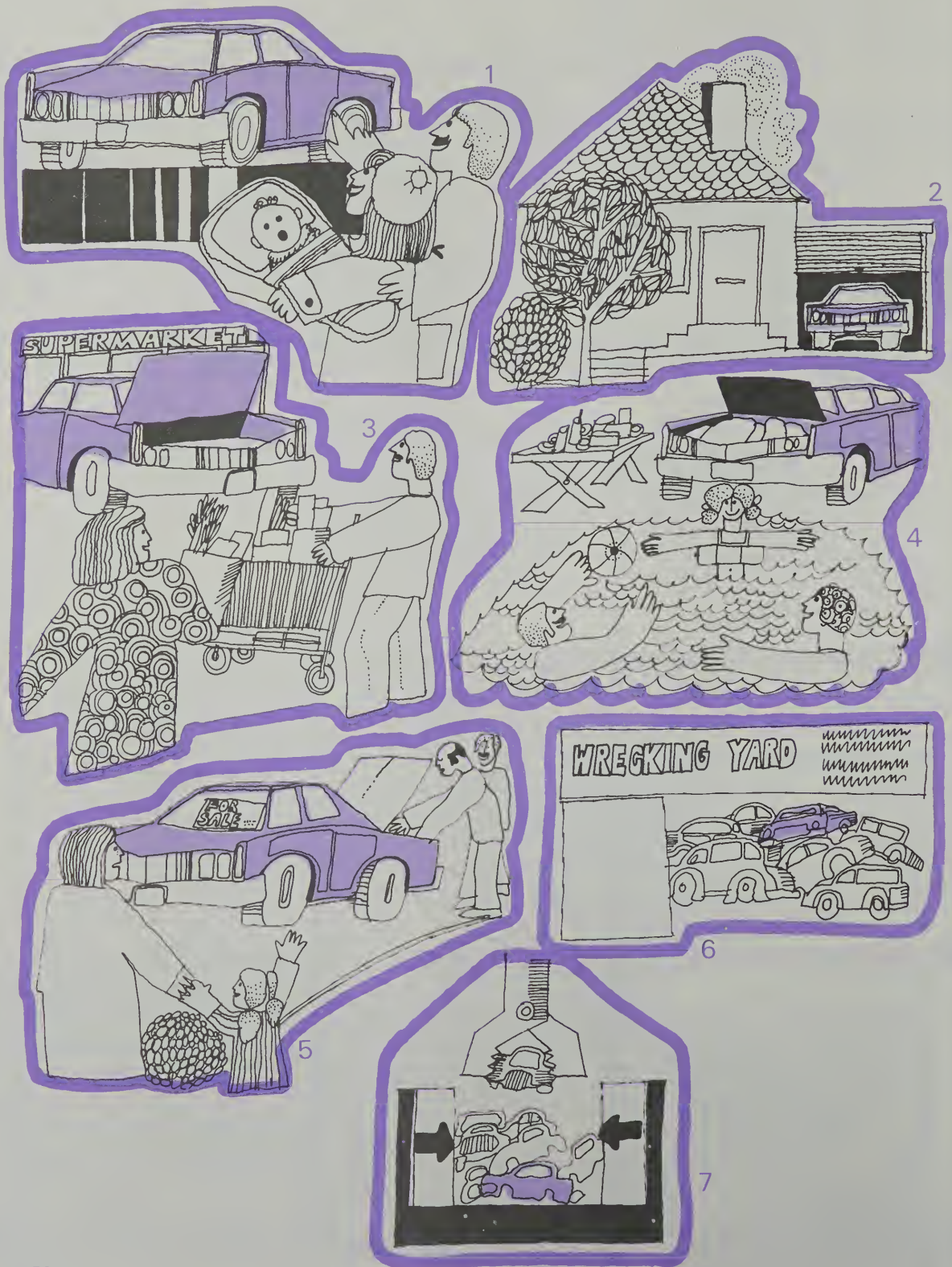
5.
Can you think of any problems a community would have because of the presence of big steel plants?

6.
Would you like to work in a steel plant? Why?

7.
Suppose you were offered any job you wished to have in the plant, which would you take? Why?

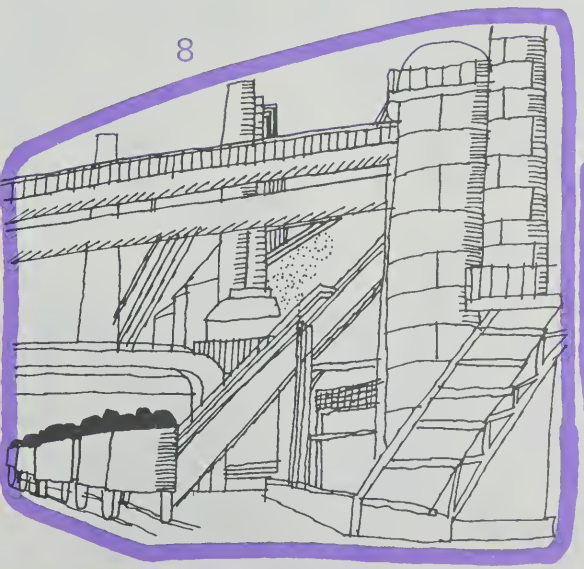
8.
Look in an atlas and find where other primary steel mills are located in North America. (Be sure to find the meaning of primary steel mill.)




1
2
SUPERMARKET
3
4
FOR SALE...
5
WRECKING YARD
6
7

1.
Explain how people feel when they buy a brand new car?
2.
Tell how the making and selling of cars and trucks is important to:
(a) an industrial community
(b) a mining community
(c) a farming community
3.
Why do people sell their cars after a few years?
4.
How do people feel when they sell an old car?
5.
Why do some people buy used parts from the scrap car dealer?
6.
Try to explain the meaning of "re-cycling materials."
7.
Is re-cycling a good idea? Explain.
8.
Why is the making of steel done so carefully?
9.
Write a story about a town with no iron or steel products. Remember Kanati?

8



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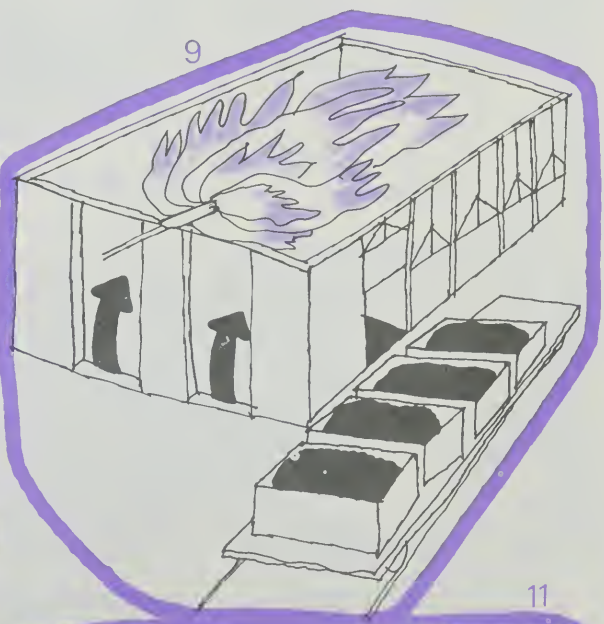
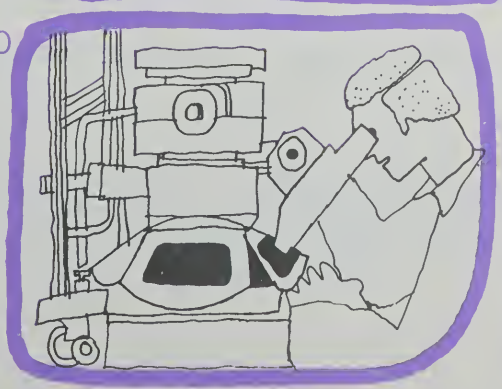


10



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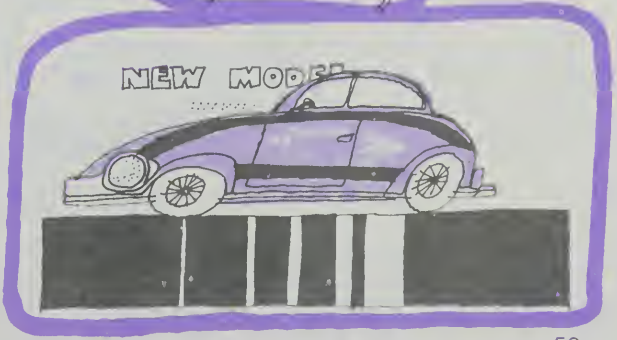

5 for 65¢
1 DOZEN
5 for 65¢
6 for 67¢
GAS
GAS
UNION
WAGES
HOURS
HEALTH BENEFITS
HOLIDAYS

1.
How does father feel when mother tells him that the money he has given her will not buy as much food for the family as before?
2.
How does father feel when he sees the price of gasoline has risen?
3.
What is a *union steward?*
4.
Tell what jobs a union steward does for the men in the factory.
5.
Write a story about how the union and the company bargain.
6.
Of the three choices you have been given to settle the bargaining which is best? Why?
7.
What are the effects of a strike on a town?
8.
Talk to your teacher about the days when workers did not have unions to help them.
9.
Tell why each side tries to be fair when solving a problem between union and management.
10.
Why must companies make a profit?

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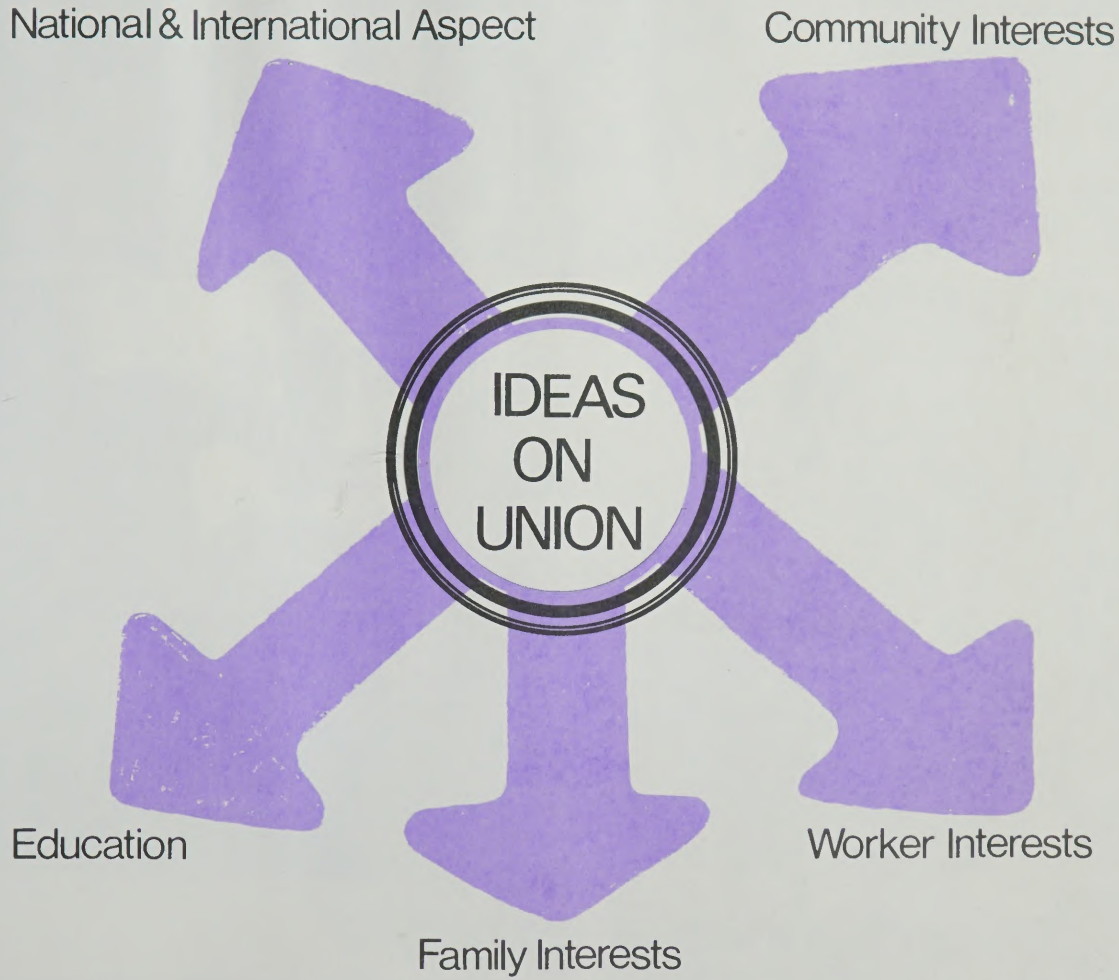
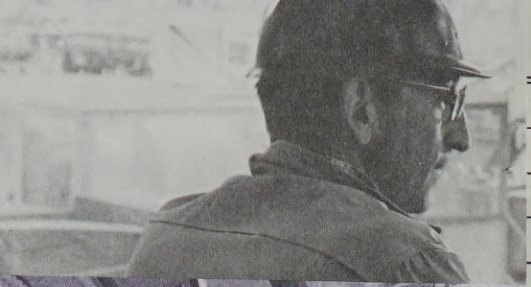
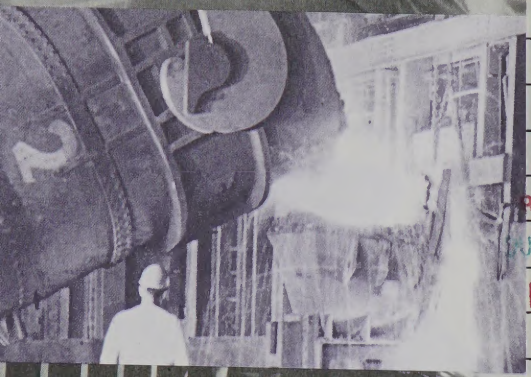
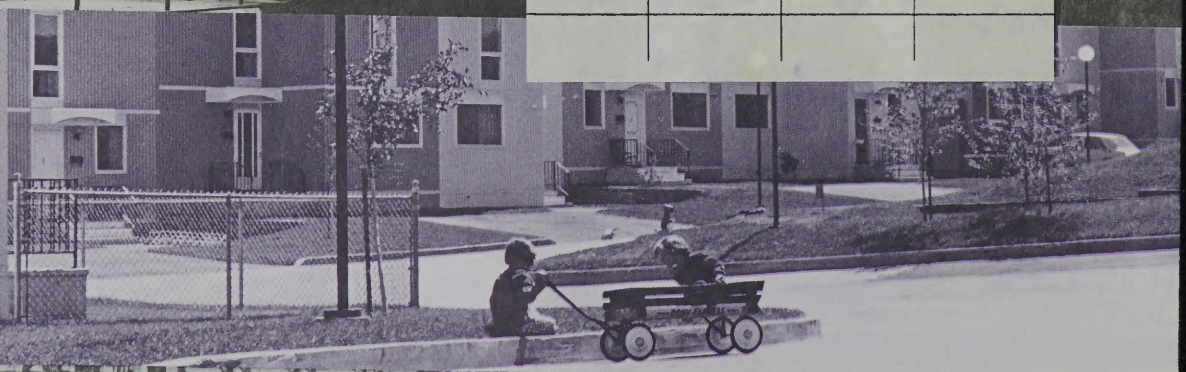
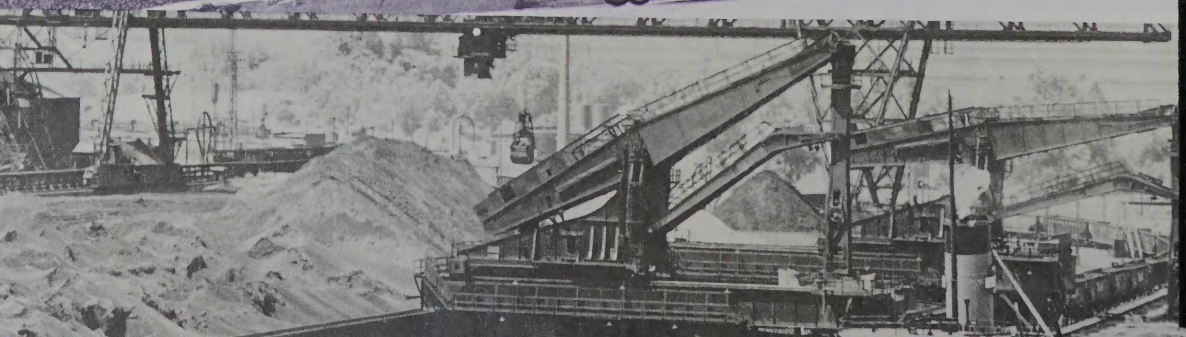

National & International Aspect
Community Interests
IDEAS
ON
UNION
Education
Worker Interests
Family Interests









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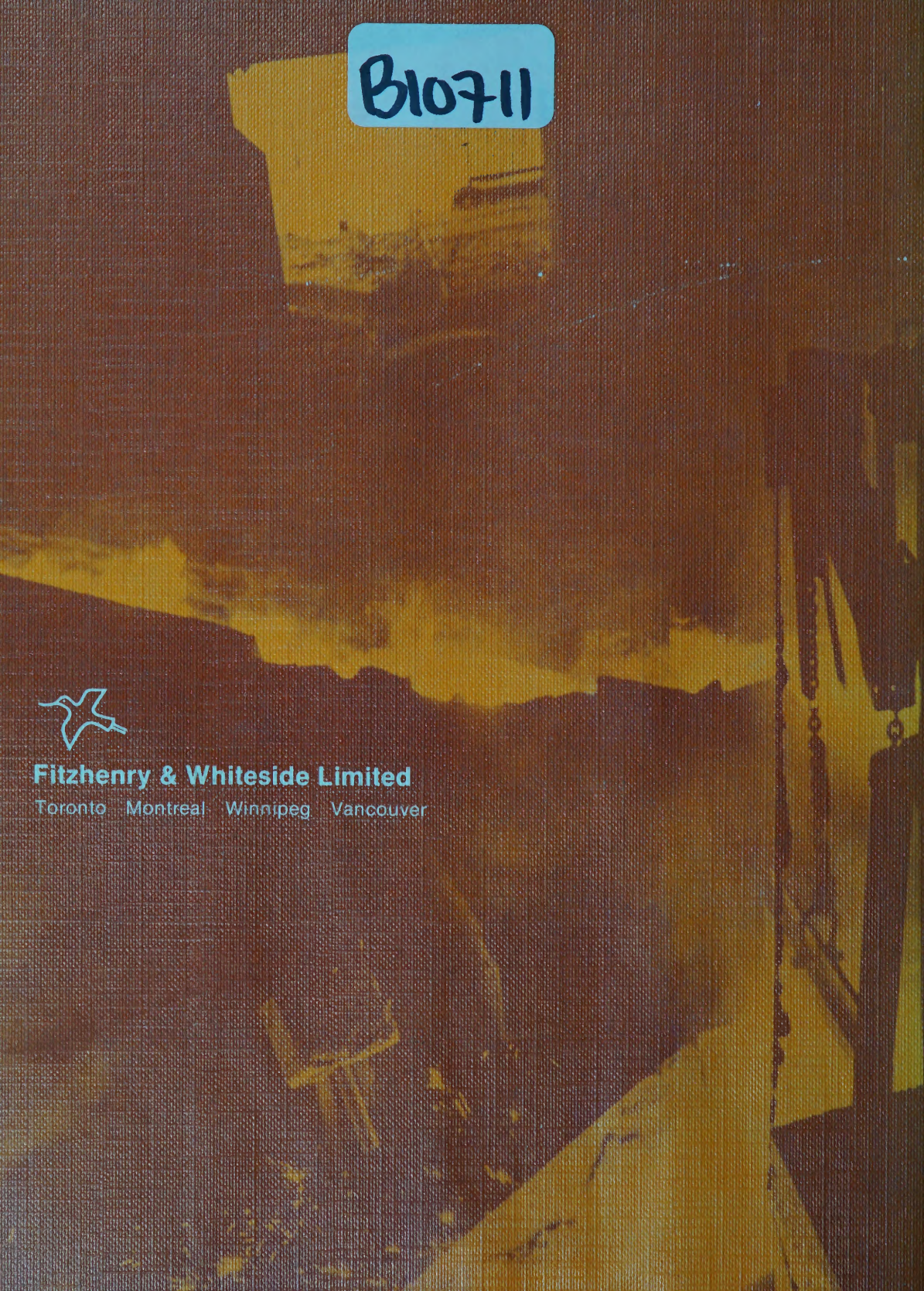

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